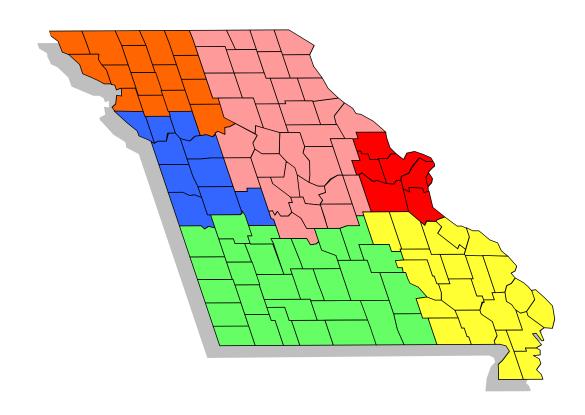
# 2002 Epidemiologic Profiles of HIV Disease and STDs in Missouri



Office of Surveillance
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## MISSOURI 2002 EPIDEMIOLOGIC PROFILES of HIV DISEASE and STDs in MISSOURI

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## General Guidelines for Interpreting the 2002 Epidemiologic Profiles of HIV Disease and STDs in Missouri

- The 2002 Epidemiologic Profiles of HIV Disease and STDs in Missouri is intended to be a generally comprehensive summary of the epidemiology (i.e., occurrence) of HIV Disease and sexually transmitted diseases (STDs, specifically the bacterial STDs gonorrhea, syphilis, and chlamydia) in Missouri through December 2002. Its primary audience is persons engaged in developing, evaluating, and modifying HIV/STD prevention services. The 2002 Epidemiologic Profiles should also serve as a useful reference for anyone wishing to understand the epidemiology of HIV disease and STDs in Missouri, and in each of the state's six HIV Regions.
- It is obvious that persons with different interests and different purposes have need for HIV Disease and STD data. To respond to these differences, The *Epidemiologic Profiles* uses several different formats to present these data, as well as other information important for understanding the occurrence of these diseases in Missouri:
  - Executive Summary and Analysis of HIV Disease and Sexually Transmitted Diseases in Missouri A summary/analysis of the epidemiology of HIV Disease and STDs in Missouri, including implications for prevention efforts.

#### • Missouri Demographic Data

Uses material developed by the Missouri Economic Research and Information Center (MERIC) based on the results of the 2000 census.

#### • Missouri State Summary

A detailed description – using tables, graphs, maps and test – of the epidemiology of HIV Disease and STDs in Missouri.

• Summaries of the Epidemiology of HIV Disease and STDs in each of Missouri's six HIV Regions
These summaries are similar to the Missouri State Summary in presenting a detailed description – using tables, graphs, maps, and test – of the epidemiology of HIV Disease and STDs in each of the state's HIV Regions.

#### Behavioral Survey Information

Presents data from selected sections of the Missouri Behavioral Risk Factor Surveillance System (BRFSS) and the Missouri Youth Risk Behavior (YRBS) surveys.

#### • HIV/AIDS Care Data

Presents data on access and utilization of care among HIV-infected individuals in Missouri.

#### • Internet Resources

The Internet has become a very important source of information of HIV Disease and STDs for medical professionals, policy makers, and the general public. This section provides a listing of useful web sites.

#### • HIV/STD Statistics

An 8-page summary – using tables, graphs, and maps – of the epidemiology of HIV Disease and STDs in Missouri.

• In order to understand the epidemiology of HIV Disease in Missouri as presented in this document, it is essential to know what is meant by the terms HIV Disease, HIV case, and AIDS case. From the time a person is infected with human immunodeficiency virus (HIV) until death, he/she has **HIV Disease**. All

persons with HIV Disease can be subclassified as <u>either</u> an **AIDS case** (if they are in the later stages of the disease process and have met the case definition for AIDS) <u>or</u> an **HIV case** (if they are in the earlier states of the disease process and have not met the AIDS case definition). Additional discussion of these terms is found throughout the document.

- The patterns of occurrence of AIDS cases (and deaths) are not only the result of past trends in HIV infections, but also reflect access to, utilization of, and the effectiveness of available treatments. In recent years, with the advent of highly active antiretroviral therapy (HAART), treatment-related issues have become very important factors in determining numbers of new AIDS cases (and deaths), and trends in AIDS cases can no longer be seen as reflecting trends in new HIV infections.
- HIV cases, which generally represent persons more recently infected, can potentially provide information regarding current HIV infection trends. HIV cases can also provide information on which subpopulations are presently at increased risk for acquiring HIV infection, and toward which prevention efforts should be targeted.
- AIDS cases, and in some instances HIV cases, are described by year of report. In addition, HIV cases are also described by year of diagnosis, which represents an attempt to approximate trends in new HIV infections (HIV incidence).
- Throughout this document, whenever reference is made to HIV cases reported in 2002, this means HIV cases reported during that year which remained HIV cases at the end of the year. Those HIV cases reported in 2002, which later in the year became AIDS cases are not included (instead, these cases are included among AIDS cases reported in 2002).
- The information obtained on each reported case of HIV Disease includes the person's race/ethnicity. As a result, each case is classified as one of the following: White, non-Hispanic, Black, non-Hispanic, Hispanic, Asian/Pacific Islander, or American Indian/Alaskan Native. In the text of this document, whenever HIV Disease cases are being discussed, the term "white" means White, non-Hispanic, and "black" means Black, non-Hispanic.
- Reports of the geographic location of HIV Disease or STD cases are based on the patient's residence at the time of diagnosis, which may or may not correspond to his/her residence at the time of initial infection, or to his/her current residence.
- The term "Outstate Missouri" refers to all of Missouri outside St. Louis City, St. Louis County, and Kansas City.
- Persons living in Federal correctional facilities located in Missouri at the time of their diagnosis as an HIV or AIDS case are not included in the data presented in this profile. These individuals were generally not residents of Missouri prior to their incarceration, and to include them in the analysis of the epidemic in the state would result in a distorted epidemiologic picture.
- Persons living in Missouri correctional facilities (which include state, county, and local facilities) at the time of their HIV/AIDS diagnosis are included in the statewide data, since most of these individuals were probably Missouri residents prior to their incarceration. However, persons living in Missouri correctional facilities are not included in the HIV/AIDS data for specific geographic regions (e.g., St. Louis City, Kansas City, the HIV Regions). This is based on the fact that these individuals, especially those in the state prison system, are often incarcerated in another location from where they resided (and were likely infected) prior to their imprisonment. If they were included among the cases from the area

where they were imprisoned at the time of diagnosis, this would distort the picture of the epidemic in that area.

- The data in this profile do not include cases of HIV infection reported in persons anonymously tested at the state's four anonymous testing sites in St. Louis City, Kansas City, Springfield, and Columbia.
- In order to help compare the relative impact of HIV Disease and specific STDs in different racial/ethnic groups and in different geographic areas, disease case rates are presented throughout this document. The population data used in calculating these rates are 2000 population estimates from the U.S. Census Bureau.
- It may be impossible to make meaningful statements concerning trends in regions with low numbers of HIV or AIDS cases. In general, examining all text and appropriate charts, tables, and graphs, including total numbers of cases and case rates, is crucial to successfully interpreting the profile.
- In the St. Louis and Kansas City regional profiles, AIDS data from adjoining areas of Illinois and Kansas, respectively, are included to provide a more comprehensive description of the impact of the epidemic in the state's two largest metropolitan statistical areas (MSAs).
- In January 1993, the AIDS case definition was broadened to include individuals with HIV infection who have a CD4+ count less than 200 cells/mm³ or a CD4+ percentage less than 14%, as well as HIV-infected persons with one of three additional conditions (pulmonary tuberculosis, invasive cervical cancer, or recurrent pneumonia). These changes in the case definition primarily account for the dramatic, one-time increase in the number of AIDS cases reported during 1993.
- The document has a section entitled "Behavioral Studies", which includes results from selected questions contained in the 2000 Behavioral Risk Factor Surveillance System (BRFSS) survey and the 1999 Youth Risk Behavior Survey (YRBS). The BRFSS data summarize HIV/AIDS-related knowledge and attitudes, and HIV testing history of participants 18-64 years of age who are representative of the general population of Missouri. The YRBS data summarize the responses of Missouri public high school students to questions about sexual behaviors.
- The document also has a section entitled "Internet Resources", which contains addresses to web sites that provide useful information on HIV Disease and STDs.
- The 2002 Epidemiologic Profiles of HIV Disease and STDs in Missouri, along with profiles from previous years, is available on the Missouri Department of Health and Senior Services (DHSS) web site at http://www.dhss.state.mo.us/FactSheets Reports/FS.html.

## ORGANIZATION OF THE PROFILE

The epidemiological profile is organized into two main sections, within which the five key questions are addressed:

## **Section 1: Core Epidemiological Questions**

This section of the report deals with the understanding of the characteristics of the general population of the state of Missouri, the distribution of HIV Disease and STDs in the state, and a description of the population at risk for HIV and STD infection. This section is organized around three key questions:

Question 1: What are the Sociodemographic Characteristics of the General Population in Missouri? Describes briefly the overall demographic and socioeconomic characteristics of the general population of Missouri.

**Question 2: What is the Scope of the HIV/AIDS Epidemic in Missouri?** Describes the impact of the HIV/AIDS epidemic among the population of Missouri.

Question 3: What are the Indicators of HIV/AIDS Infection Risk in Missouri? Provides an analysis of the high-risk populations. Both the direct and indirect measures of risk behaviors associated with HIV transmission and the indicators of high-risk behaviors are described in this section.

## Section 2: Ryan White HIV/AIDS Care Act Special Questions and Considerations

This section focuses on the questions that pertain to Health Resources and Services Administration (HRSA) HIV/AIDS care planning groups. It describes access to, utilization of, and standard of care among persons in Missouri who are HIV infected. It is organized around the two key questions:

Question 1: What are the HIV Service Utilization Patterns of Individuals with HIV Disease in Missouri? Characterizes the patterns in the use of services by the population living with HIV/AIDS in Missouri.

Question 2: What are the Number and Characteristics of the Individuals who Know They are HIV positive but who are not in Care? Assesses the unmet need of persons who know they are HIV positive, but are not in care. Describes their service needs and perception of care.

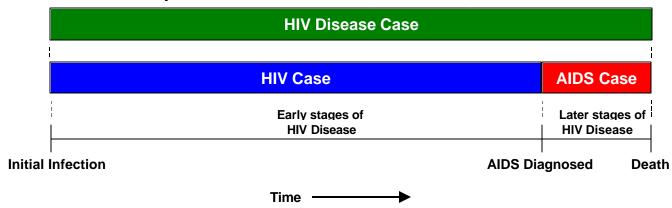
## **Executive Summary and Analysis of HIV Disease** and Sexually Transmitted Diseases in Missouri

## HIV Disease in Missouri - 2002 General Summary and Comments

## **HIV Disease Cases, HIV Cases, and AIDS Cases**

From the time a person is infected with human immunodeficiency virus (HIV) until death, he/she has **HIV Disease**. All persons with HIV Disease can be subclassified as <u>either</u> an **AIDS case** (if they are in the later stages of the disease process and have met the case definition for AIDS) <u>or</u> an **HIV case** (if they are in the earlier stages of the disease process and have not met the AIDS case definition). This is illustrated in the following figure.

## Relationship of HIV Disease Cases, HIV Cases, and AIDS Cases



To understand the epidemiology (i.e., occurrence) of HIV Disease in Missouri, it is necessary to examine not only HIV Disease cases, but also the subcategories of AIDS cases and HIV cases. The patterns of occurrence of AIDS cases (and deaths) are the result not only of past trends in HIV infections, but also access to, utilization of, and the effectiveness of available treatments. In recent years, with the advent of highly active antiretroviral therapy (HAART), treatment-related issues have become very important factors in determining numbers of new AIDS cases (and deaths), and trends in AIDS cases can no longer be seen as reflecting trends in new HIV infections. HIV cases, which generally represent persons more recently infected, can potentially provide information regarding current HIV infection trends. HIV cases can also provide information on which subpopulations are presently at increased risk for acquiring HIV infection, and toward which prevention efforts should be targeted.

## **Magnitude of the Problem and General Trends**

Since 1982, 14,135 HIV-infected Missouri residents (i.e., persons with HIV Disease) have been reported to the Missouri Department of Health and Senior Services. Of these 14,135 HIV Disease cases, 9,478 (67.1%) are subcatagorized as AIDS cases, and the remaining 4,657 (32.9%) are subcatagorized as HIV cases.

The annual number of newly reported (i.e., initially reported for the first time to public health officials) HIV Disease cases had decreased each year from 1992 through 2000. However, the 622 HIV Disease cases initially reported in Missouri residents in 2001 represented a 18.0% increase from the 527 cases reported in 2000; but the 487 new HIV Disease cases reported in 2002 represents a 21.7% decrease from the 622 cases reported in the previous year, and is consistent with the decreasing trend noted since 1992.

The decreases in recent years in annually reported HIV Disease cases and annually diagnosed HIV cases were believed to reflect, at least in part, a decrease in new HIV infections (i.e., a decrease in HIV Disease incidence), at least in some subpopulations. However, it was recognized that this decrease could also, to some extent, potentially reflect changes in the HIV testing behaviors of at-risk persons and/or changes in the HIV testing practices of providers.

Of the 14,135 reported HIV Disease cases, 8,918 (63.1%) are currently living, and 5,217 (36.9%) have died. The majority (5,023, or 96.3%) of these deaths have been in persons subcategorized as AIDS cases. The 5,023 AIDS cases who have died make up 53.0% of all reported cases of AIDS in the state. During 2002, 123 HIV-related deaths in Missouri residents were reported on death certificates, a decrease of 18.0% from the 150 HIV-related deaths reported in 2001.

Not all HIV-infected persons have been diagnosed and thus made aware of their infection status. It is estimated that the actual number of individuals infected with HIV (i.e., persons with HIV Disease) who are presently living in Missouri is in the approximate range of 9,500 to 13,500 persons. The Centers for Disease Control and Prevention (CDC) has stated that, nationwide, approximately 30% of HIV-infected persons are <u>not</u> aware that they are infected¹ (although a more recent CDC report has indicated that among young gay and bisexual men infected with HIV, the percentage who do not know their infection status may be much higher²¹). An essential component of HIV prevention is to encourage/ assist persons at risk for HIV infection to be tested so that, if infected, they can optimally benefit from available treatments, and be assisted in making behavioral changes to eliminate/reduce the risk of transmission to others.

Improved antiretroviral therapies (introduced since the mid-nineties) have slowed the progress of HIV Disease in many infected persons, an achievement especially reflected in the substantial decrease in reported AIDS cases in Missouri from 1996 to 1997, and in HIV Disease deaths from 1995 to 1997. The annual number of HIV Disease deaths has remained generally plateaued during the past 5 years. This likely reflects, at least in part, the limitations associated with current treatment regimens. Other factors that could potentially play a role here include delayed test seeking among certain populations, and limited access to or use of health care services.<sup>2</sup>

There is an obvious need for continued emphasis on prevention of new infections, and for trying to ensure that all infected persons can access needed care services. Everyone needs to clearly understand that "despite medical advances, HIV infection remains a serious, usually fatal disease that requires complex, costly, and difficult treatment regimens that do not work for everyone. As better treatment options are developed, we must not lose sight of the fact that preventing HIV infection in the first place precludes the need for people to undergo these difficult and expensive therapies."<sup>3</sup>

The ability of improved treatments to extend the lifespan of AIDS patients is reflected in the consistent increase in the number of persons living with AIDS in recent years, even though the annual numbers of new AIDS cases have been decreasing. At the end of 2002, 4,455 persons who were Missouri residents at the time of diagnosis were living with AIDS; the corresponding numbers for 2001, 2000, 1999, 1998, 1997, and 1996 were 4,262, 4,049, 3,784, 3,496, 3,235, and 3,055, respectively.

#### Where

Of the 4,657 reported HIV cases: 1,340 (28.8%) were from St. Louis City, 1,190 (25.6%) were from Outstate Missouri\*, 1,155 (24.8%) were from Kansas City, and 629 (13.5%) were from St. Louis County.

Of the 9,478 reported AIDS cases: 2,693 (28.4%) were from St. Louis City, 2,615 (27.6%) were from Kansas City, 2,475 (26.1%) were from Outstate Missouri, and 1,466 (15.5%) were from St. Louis County.

Cases of HIV Disease disproportionately occur in the state's two major metropolitan areas (St. Louis and Kansas City). The highest rates of both HIV and AIDS cases, as well as the largest numbers of cases, are found in these two areas. St. Louis City consistently has the highest case rates, followed by Kansas City, St. Louis County, and Outstate Missouri\*.

Of total reported HIV Disease cases, 70.0% come from St. Louis City, St. Louis County, or Kansas City (which together comprise 32.3% of the state's population). However, 3,665 cases of HIV Disease have been reported from Outstate Missouri, and only 5 (4.4%) Missouri counties have no reported HIV or AIDS cases. Clearly, HIV prevention efforts are needed throughout the whole state.

Within St. Louis City/County and Kansas City, both HIV Disease cases and cases of bacterial STDs generally tend to occur in the same specific areas.\*\* It is within these areas that the needs for prevention and care services are the greatest.

#### Who

Of the 4,657 reported HIV cases: 3,848 (82.6%) were in males and 809 (17.4%) were in females.

Of the 9,478 reported AIDS cases: 8,520 (89.9%) were in males and 958 (10.1%) were in females.

Of the 4,657 reported HIV cases: 2,504 (53.8%) were in whites, 1,981 (42.5%) were in blacks, 114 (2.4%) were in Hispanics, 16 (0.3%) were in Asian/Pacific Islanders, and 15 (0.3%) were in American Indians.

Of the 9,478 reported ATDS cases: 6,098 (64.3%) were inwhites, 3,125 (33.0%) were inblacks, 197 (2.1%) were in Hispanics, 32 (0.3%) were in American Indians, and 26 (0.3%) were in Asian/Pacific Islanders.

Males continue to make up the largest numbers of reported HIV Disease cases, but certain populations of females appear to be increasingly affected by HIV Disease. Of AIDS cases reported in 2002, females made up 20.9%; by comparison, of AIDS cases reported six years previously (in 1996), only 12.1% were in females.

In 2002, blacks made up 43.0% of reported HIV cases and 44.4% of reported AIDS cases. Given that blacks make up only about 11% of the state's population, this clearly indicates their very disproportionate representation among HIV-infected persons. The rate for HIV cases reported in 2002 in blacks (21.6) was

<sup>\*</sup> The term "Outstate Missouri" refers to all of Missouri outside St. Louis City, St. Louis County, and Kansas City.

<sup>\*\*</sup> See the zip code maps in the St. Louis and Kansas City HIV Regions sections of the Epidemiologic Profiles.

6.5 times the rates in whites (3.3). Also, 57% of AIDS-related deaths in 2002 were in blacks. Blacks are also highly disproportionately represented among reported cases of gonorrhea, chlamydia, and syphilis (see the discussion of these diseases later in the summary).

For Hispanics, although the total numbers of cases reported for HIV and AIDS in Missouri is small (14 HIV cases and 14 AIDS cases in 2002), the rates for HIV and AIDS cases reported were 3.6 times those seen in whites. There are some reasons for concern that HIV Disease might be a more significant problem for Hispanics in Missouri than current numbers seem to indicate. First, it is possible that among reported HIV and AIDS cases, because of incorrect information provided on the case report forms, a higher proportion may actually be of Hispanic ethnicity than is indicated by the current numbers. Second, the Hispanic population is increasing rapidly in Missouri. According to 2000 census data, Missouri's Hispanic population grew by 92.2% during the period from 1990 to 2000 (from 61,698 in 1990 to 118,592 in 2000); in contrast, Missouri's total population grew by only 9.3% during this time.<sup>4</sup> Another point with regard to persons identified as Hispanics is that these individuals actually consist of a diverse mixture of ethnic groups and cultures. This points to the need for specifically targeted prevention efforts.<sup>5</sup>

Numbers of reported HIV and AIDS cases in Asians and American Indians have been very small; each of these two groups comprises less than 0.5% of total reported HIV and AIDS cases. In 2002, no AIDS cases and only 2 HIV cases each were reported in Asians and in American Indians in Missouri.

It should be emphasized that race/ethnicity in itself is not a risk factor for HIV infection; however, among many racial/ethnic minority populations, social, economic and cultural factors are associated with high rates of HIV risk behavior. These factors also may be barriers to receiving HIV prevention information or accessing HIV testing, diagnosis, and treatment.<sup>6</sup>

The majority of new HIV infections (71.5% in 2002) are acquired by persons 20-39 years of age. Although relatively small in number, infections are also occurring in teenagers (4.4% in 2002) in Missouri. CDC estimates that, nationwide, about half of all new HIV infections are in young people under 25 years of age.<sup>1</sup>

In 2002, no infected infants were born to HIV-infected mothers. More generally, the proportion of HIV-exposed infants who became infected was noticeably less for those born during the period from 1995-2002 compared to those born during the earlier period from 1993-1994 (6.9% vs. 26.4%). This difference reflects the use, starting in mid-to late-1994, of zidovudine (AZT, ZDV) treatment to reduce the risk of perinatal HIV transmission. It remains vitally important for all pregnant women to receive adequate prenatal care, starting early in their pregnancy, and to know their HIV status so that, if infected, they can take advantage of antiretroviral treatment to significantly reduce the risk of HIV transmission to their child, and also receive optimal treatment for their own disease. Prenatal providers should encourage all pregnant women to undergo voluntary HIV testing. Such testing should be viewed as a routine part of prenatal care for all women who are pregnant.<sup>7</sup>

## **Major Exposure Categories**

There are currently four major exposure categories into which almost all adults/adolescents recently infected with HIV can be placed: 1) men who have sex with men (MSM); 2) heterosexual contacts; 3) injecting drug users (IDU); and 4) men who have sex with men and inject drugs (MSM/IDU).

### Men Who Have Sex With Men (MSM)

It is estimated that 2,931 (63.6%) of the total reported 4,612 adult/adolescent HIV cases, and 6,672 (70.9%) of the total reported 9,406 adult/adolescent AIDS cases in Missouri are in MSM. It is also estimated that approximately 193 (61.3%) of the 315 new adult/adolescent HIV cases and 220 (61.8%) of the 356 new adult/adolescent AIDS cases diagnosed in 2002 in Missouri were in MSM.

Although the largest <u>numbers</u> of reported HIV and AIDS cases continue to be in MSM, there is evidence that, among persons more recently infected with HIV, a smaller proportion are MSM.

HIV infection is a problem among both white and black MSM. Of total reported HIV cases in MSM, 61.1% were in white men, 35.2% were in black men, and 2.6% were in Hispanic men. White men comprise 69.4%, black men 28.2% and Hispanic men 1.9% of the total reported AIDS cases in MSM in Missouri. It is apparent that although more cases of HIV and AIDS have been reported from white MSMs (61.1% of HIV cases and 69.4% of AIDS cases), black MSMs experience higher rates of infection (35.2% of HIV cases and 28.2% of AIDS cases), given that blacks make up only 11% of the state's population.

Most MSM who become infected with HIV likely do so while in their twenties or thirties, but infections are also occurring in teenagers. Black MSM in Missouri may, in general, be infected at somewhat younger ages compared to white MSM (44.2% of black MSM were in their twenties, while 42.9% of white MSM were in their thirties in 2002). CDC data from other states suggest that, in general, racial/ethnic minority MSM may become infected at younger ages compared with white MSM.8

The majority of HIV-infected MSM are from either the St. Louis or Kansas City metropolitan areas. Of total reported HIV cases in MSM, 73.6% were in men living in St. Louis City, St. Louis County, or Kansas City at the time of diagnosis. In addition, 67.0% of white MSM HIV cases, 84.6% of black MSM cases, and 84.3% of Hispanic MSM cases were from one of these three locations.

It is estimated that approximately 193 new HIV cases and 220 new AIDS cases were diagnosed in MSM in 2002. The estimates for 2001 were 246 new HIV cases and 221 new AIDS cases respectively. There has been a drop in HIV incidence among MSM from 2001 to 2002, while the number has remained almost unchanged for AIDS cases in MSM. This is indicative of proportionately fewer infections occurring in MSM and is consistent with the generalized decline noticed during the period from 1990-2000 in Missouri. However, there was an increase by approximately 40 cases from 2000-2001. Most of the increase in 2001 was from St. Louis City, where the estimated numbers of diagnosed cases in black and white MSM increased by about 20 cases and 10 cases, respectively. In Kansas City, a smaller increase of about 10 diagnosed HIV cases appeared to occur in 2001, involving mostly white MSM.

It should be noted that CDC has been expressing concern that the risk for HIV transmission among MSM may be increasing, at least in some parts of the country. Evidence for this includes the fact that increased rates of syphilis, gonorrhea, and chlamydial infection, largely among HIV-infected MSM, have been recently reported in many cities in the U.S. Preliminary data also indicate higher frequencies of unsafe sex, and suggest that the incidence of HIV infection may be rising among MSM in some cities. The underlying behavioral changes likely are related to effects of improved HIV/AIDS therapy on quality of life and survival, "safer sex burnout," and in some cities, adverse trends in substance abuse.9

#### **Heterosexual Contacts**

It is estimated that 931 (20.2%) of the total reported 4,612 adult/adolescent HIV cases, and 912 (9.7%) of the total reported 9,406 adult/adolescent AIDS cases in Missouri are in heterosexual contacts. It is also estimated that approximately 91 (28.9%) of the 315 new adult/adolescent HIV cases and 76 (21.3%) of the 356 new adult/adolescent AIDS cases reported in 2002 were in heterosexual contacts.

Certain subpopulations of heterosexuals appear to be increasingly affected by HIV Disease. There is, in contrast to the situation in MSM, evidence that in persons more recently infected with HIV, a larger <u>proportion</u> are heterosexual contacts.

The majority of reported heterosexual contact HIV and AIDS cases have been in women. The fact that there are fewer male cases may, in part, be related to two factors. First, some heterosexual contact female cases were infected by bisexual men. However, if these bisexual men are themselves diagnosed and reported, they will, according to the current classification scheme, be categorized as MSM (not heterosexual contact) cases. Second, adolescent and young adult men are less likely to be seen by a medical provider than are females of the same age. Consequently, young females may have more opportunity to receive HIV testing and thus be more likely, if infected, to be diagnosed and reported than are young men.

Black women are especially affected, making up 45.3% of total reported heterosexual contact HIV cases (white women make up an additional 27.8%). Heterosexual contact is the predominant way that women in Missouri are infected with HIV (slightly more than 74% of female HIV cases were probably infected through heterosexual contact), and among more recently infected women, a higher proportion are likely to have been infected through this mode of transmission.

The largest proportion of female heterosexual contact cases were probably initially infected while in their twenties. However, teenagers (especially females) are also being infected with HIV through heterosexual transmission (15.0% of black female heterosexual contact HIV cases, and 11.1% of white female heterosexual contact HIV cases, were initially diagnosed while in their teens; in addition, it is highly likely that some persons diagnosed as HIV cases in their twenties were initially infected while in their teens).

The majority of HIV-infected heterosexual contacts are from either the St. Louis or Kansas City metropolitan areas. Of total reported HIV cases in heterosexual contacts, 62.4% were in persons living, at the time of diagnosis, in either St. Louis City, St. Louis County, or Kansas City (which together comprise 32.3% of the state's population). In addition, 34.2% of white heterosexual contact HIV cases, 78.7% of black heterosexual contact cases, and 50.0% of Hispanic heterosexual contact cases were from one of these three locations.

It is estimated that approximately 91 new HIV cases were diagnosed in heterosexual contacts in 2002. Since 1990, and in contrast to trends in the other major exposure categories, the annual number and proportion of diagnosed HIV cases in heterosexual contacts has generally been increasing. However, this general upward trend in diagnosed cases is only seen in blacks, whereas in whites the annual number of diagnosed cases has essentially remained plateaued.

Given the increasing number of heterosexual contact HIV cases being reported, and the known presence of high-risk sexual behaviors among many heterosexuals, prevention efforts directed to at-risk subpopulations of heterosexuals are vital.

Among the subpopulations of concern are teenagers. Results from the Missouri Youth Risk Behavior Survey (YRBS) indicate that many teenagers are engaging in sexual behaviors that place them at risk for sexually transmitted infections, including infection with HIV.<sup>11</sup> Such risky behaviors are reflected in the fact that teenagers make up a substantial proportion of reported cases of gonorrhea and chlamydia. Among gonorrhea cases reported in Missouri in 2002, persons 13-19 years of age made up 40.0% of black female cases, 37.0% of white female cases, 19.6% of black male cases, and 15.2% of white male cases.

Behavioral survey (HITS II) results from STD clinic patients indicated the continuing presence of behaviors associated with HIV and STD transmission, such as multiple sexual partners, inconsistent condom use and drug use. The findings also indicated that some of these individuals might be less careful than before regarding sexual (or drug-using) behaviors because of their knowledge of more effective HIV treatment regimens. Persons who receive services in STD clinics, as well as other persons with a recent history of an STD, comprise populations in continuing need of effective prevention services.<sup>10</sup>

Prevention activities must additionally address bisexual men with or at risk for HIV infection, since these individuals form a bridge between infected or high-risk male homosexual and heterosexual populations. In this regard, it is significant that information obtained through interviews indicates that at least 24% of reported MSM HIV Disease cases state they have also had sex with a female(s), and among reported cases in MSM/IDUs, the figure is at least 44%. This latter percentage is consistent with the results of a CDC-supported study that interviewed HIV-infected MSM/IDUs in 12 states (not including Missouri) and found that 43% reported having had sex with women in the preceding five years.<sup>12</sup>

#### **Injecting Drug Users (IDUs)**

It is estimated that 418 (9.1%) of the 4,612 reported adult/adolescent HIV cases, and 739 (7.9%) of the 9,406 reported adult/adolescent AIDS cases in Missouri are IDUs. It is also estimated that approximately 17 (5.4%) of the 315 new adult/adolescent HIV cases and 37 (10.4%) of the 356 new adult/adolescent AIDS cases reported in 2002 were in IDUs.

Sharing of syringes and other drug paraphernalia among persons who inject drugs has been a less common means of transmitting HIV in Missouri compared to the situation in a number of other states. However, IDUs do make up approximately 9% of Missouri's total reported adult/adolescent HIV cases and an additional 6% of HIV cases are in MSM who also report injecting drug use (MSM/IDU]. Also, IDUs make up approximately 8% of Missouri's total AIDS cases and an additional approximately 9% of AIDS cases are in MSM/IDU.

Males, and blacks, are disproportionately represented among reported HIV cases in IDUs. Of total reported IDU HIV cases, males make up approximately 68%, and blacks comprise approximately 48%.

Among black and white male and black female HIV-infected IDUs, approximately half (47%) were 30-39 years of age. A relatively small number appear to acquire their infection while teenagers.

Of total reported HIV cases in IDUs, slightly less than half (48.6%) were in persons living in St. Louis City, St. Louis County, or Kansas City at the time of diagnosis. One out of every five (19.8%) IDU HIV cases

were diagnosed while in correctional facilities. By contrast, 5.2% of heterosexual contact HIV cases were diagnosed while in a correctional facility setting.

It is estimated that approximately 17 new HIV cases and 37 new AIDS cases were diagnosed in IDUs in 2002. The annual number of diagnosed HIV cases in IDUs generally decreased during the period from 1990-1999, then during 2000-2001, the number of diagnosed cases rose slightly, then again fell to a lower level in 2002.

Behavioral survey (HITS II) findings indicate the presence of behaviors associated with HIV transmission, such as multiple sexual partners, inconsistent condom use, and non-injectable drug use in the populations of Missouri IDUs surveyed. O Some HIV-infected IDUs likely became infected through sexual contact rather than sharing of syringes/drug paraphernalia. The presence of such risky behaviors, coupled with the fact that, according to a recent estimate, there are almost 12,000 IDUs currently living in Missouri populations.

#### Men Who Have Sex With Men and Inject Drugs (MSM/IDU)

It is estimated that 287 (6.2%) of the 4,612 reported adult/adolescent HIV cases, and 830 (8.8%) of the 9,406 reported adult/adolescent AIDS cases in Missouri are MSM/IDUs. It is also estimated that approximately 14 (4.4%) of the 315 new adult/adolescent HIV cases and 18 (5.1%) of the 356 new adult/adolescent AIDS cases in 2002 were in MSM/IDUs.

HIV infection is a problem among both white and black MSM/IDUs; more cases have been reported from white MSM/IDUs, but black MSM/IDUs are likely experiencing higher rates of infection. Of total reported HIV cases in MSM/IDUs, 64.1% were in white men, 32.6% were in black men, and 1.8% were in Hispanic men.

Most MSM/IDUs who become infected with HIV likely do so while in their twenties or thirties.

The majority of HIV-infected MSM/IDUs are from either the St. Louis or Kansas City metropolitan areas. Of total reported HIV cases in MSM/IDUs, 54.9% were in men living in St. Louis City, St. Louis County, or Kansas City at the time of diagnosis; in addition, 49.7% of white MSM/IDU HIV cases and 64.0% of black MSM/IDU cases were from one of these three locations.

It is estimated that approximately 14 new HIV cases and 18 new AIDS cases were diagnosed in MSM/IDUs in 2002. The annual number of diagnosed HIV cases in MSM/IDUs generally decreased during the period from 1990-2000, but then apparently increased by approximately 10 cases from 2000-2001. The number has again started to fall since 2001.

A recent CDC report on MSM/IDUs pointed out that because these individuals have multiple risks for HIV infection, they are particularly vulnerable to infection and can transmit HIV across multiple populations, including MSM, IDU, and heterosexual women. Prevention strategies must provide the information, skills, and support necessary to reduce both sexual and drug-related risk behaviors among MSM/IDUs, and include access to drug treatment and case management.<sup>14</sup>

## **Additional Comments**

## **HIV/AIDS Care Planning**

In 1990, Congress enacted the Ryan White CARE Act to provide funding for states, territories, and eligible metropolitan areas (EMA) to offer primary care and support services for individuals living with HIV Disease who lack health insurance and financial resources for their care. Congress reauthorized the Ryan White CARE Act in 1996 and again in 2000 to support Titles I-IV, Special Projects of National Significance (SPNS), the HIV/AIDS Education Training Centers and the Dental Reimbursement Program, all of which are a part of the CARE Act.

In Missouri, there are at least 10 distinct entities directly receiving Ryan White funds through the various Titles for the provision of services. Included are the two Title I cities of St. Louis and Kansas City, the single Title II recipient which is the Missouri Department of Health and Senior Services, four community-based organizations that receive Title III funds, two Title IV funded agencies, and the University of Missouri-Kansas City Dental School receives funding under Part F.

During 2002, in the state of Missouri, the Ryan White Comprehensive AIDS Resources Emergency (CARE) Act Title II funds provided assistance through HIV Case Management to approximately 42% of persons living with HIV. The HIV Case Management Program provides access and referrals to clients for all Title II services. Services provided by the Ryan White Title II CARE Act in Missouri include FDA approved HIV-related prescriptions drugs (ADAP); primary care, housing and utility assistance, food and other needed support services.

Due to mandatory reporting of CD4 cell counts to the Missouri Department of Health and Senior Services, and based on collaboration with Ryan White grantees nationally, access to primary care is defined as having had a CD4 count within a 12-month period of time. Approximately, 44% of persons living with HIV (PLWH) enrolled in case management had a reported CD4 count in 2002 compared to 29.8% for all PLWH. Thirty percent (30%) of PLWH enrolled in case management had a CD4 count greater than 200 cell/mm³ compared to 20% of all PLWH. Along with access to primary care and other indicators such as disease progression, the HIV Case Management Program demonstrates a positive impact on the health of PLWH in Missouri.

#### **Substance Abuse, Including Non-Injecting Drug Use**

CDC has stated that substance abuse is fueling the sexual spread of HIV in the U.S., especially in minority communities with high rates of STDs.<sup>15</sup> Sharing of syringes and other drug paraphrenalia is a well known route of HIV transmission, yet injection drug use contributes to the HIV epidemic's spread far beyond the circle of those who inject. People who have sex with an IDU also are at risk for infection through the sexual transmission of HIV. Children born to mothers who contracted HIV through sharing needles or having sex with an IDU may become infected as well. Noninjection drugs (such as "crack" cocaine or methamphetamines) also contribute to the spread of the epidemic when users trade sex for drugs or money, or when they engage in risky sexual behaviors that they might not engage in when sober. One CDC study of more than 2,000 young adults in three inner-city neighborhoods found that crack smokers were three times more likely to be infected with HIV than non-smokers. Effective substance abuse treatment that helps people stop using drugs not only eliminates the risk of HIV transmission from sharing contaminated syringes, but, for many, reduces the risk of engaging in risky behaviors that might result in sexual transmission.<sup>16</sup>

### **Civilian Applicants for Military Service**

Civilian applicants for military service are routinely tested for HIV infection, and the results of this testing provide information on trends in HIV Disease within this particular population of young people. Among the 134,364 Missouri military service applicants tested for HIV during the period from 1986 through 1999, only a very small percentage (0.06%) have tested positive.

The HIV seropositivity rate was higher in males than in females (0.07% vs 0.04%), and in blacks compared to whites (0.21% vs 0.04%). The highest seropositivity rate was in black males (0.25%), followed by black females (0.08%), white males (0.04%), and white females (0.03%).

The overall seropositivity rate for Missouri civilian applicants for military service has, in general, been decreasing since 1987. The seropositivity rate in blacks has fluctuated during this period, but has decreased during each of the past 3 years. The white seropositivity rate has been very low in recent years without noticeable upward or downward trends.

## Other Sexually Transmitted Diseases in Missouri - 2002 General Summary and Comments

Sexually transmitted diseases (STDs) such as gonorrhea, chlamydia, and syphilis are important public health problems in Missouri. Each of these diseases has the potential to cause very serious long-term consequences in infected persons. In addition, the presence of any of these diseases makes HIV transmission from an HIV-infected person to his/her non-HIV-infected sexual partner 2-5 times more likely to occur. More specifically, biological factors make people who are infected with an STD more likely to become infected with HIV if exposed sexually; and HIV-infected people with an STD are more likely to transmit HIV to their sex partners. It follows that an essential component of HIV prevention consists of efforts to decrease the occurrence of SIDE.

#### Gonorrhea

Large numbers of Missourians are infected with *Neisseria gonorrhoeae* each year; 8,952 gonorrhea cases were reported in the state in 2002, and many additional persons were undoubtedly infected but not diagnosed and reported. Blacks continue to be very disproportionately affected. In 2002, 6,289 (70.3%) gonorrhea cases were reported in blacks compared to 1,339 (15.0%) cases in whites, and the rate of reported black cases (999.2) was 35 times the rate for whites (28.2). For both blacks and whites, the largest numbers of cases are reported from persons in their late teens and early twenties. Among females, the late teens is the age group with the most reported cases, whereas among males, the largest numbers of cases are in the 20-24 age group.

In 2002, the largest numbers of gonorrhea cases, and the highest rates, were reported from St. Louis City, followed by Kansas City, St. Louis County, and Outstate Missouri. Cases were reported from 91 (79.8%) of Missouri's 114 counties (and from St. Louis City). The annual number of reported gonorrhea cases in Missouri decreased each year from 1989 to 1997; since that time, no sustained upward or downward trends have been seen. The 8,952 cases reported in 2002 represented a 2.6% increase from the 8,723 cases reported the preceding year. In 2002, Missouri ranked 13th among the 50 states in rates of reported gonorrhea cases; in addition, with a rate of 786.1 cases per 100,000 population, St. Louis topped the list and Kansas City (Jackson County) ranked 5th (with a rate of 580.9) among U.S. cities of >200,000 population in reported rates of gonorrhea cases.

#### Comment:

Most gonococcal infections among men produce symptoms that cause them to seek curative treatment soon enough to prevent serious sequelae, but this may not be soon enough to prevent transmission to others. Among women, many infections with *N. gonorrhoeae* do not produce recognizable symptoms until complications (e.g., pelvic inflammatory disease, or PID) have occurred. If not adequately treated, 10% to 40% of women infected with gonorrhea develop PID. Among women with PID, tubal scarring will cause involuntary infertility in 20%, ectopic pregnancy in 9%, and chronic pelvic pain in 18%. Both symptomatic and asymptomatic cases of PID can result in tubal scarring that can lead to these other complications.<sup>9,18</sup>

In Missouri, as well as nationwide, the largest burden of infection is in blacks, among teenagers and young adults, and in urban areas. However, gonococcal infections, although on a smaller scale, are also occurring in other groups of individuals and in non-urban areas. The rate for gonorrhea cases reported in Missouri in 2002, 160.0 cases per 100,000 persons, is above the national rate of 122.0 cases per 100,000, and is way above the Healthy People 2010 (HP2010) national objective of 19 cases per 100,000 persons.<sup>19</sup>

The fact that large numbers of new infections are taking place each year in Missouri is an ongoing cause for concern, especially because of the potential sequelae (particularly in women) that can result, and because the presence of an inflammatory STD such as gonorrhea can facilitate the transmission of HIV. In addition, the occurrence of large numbers of gonococcal infections reflects the substantial prevalence of unsafe sexual practices, which can cause transmission of other STDs and HIV.

Prevention of new gonococcal infections should be an important priority, and can include efforts to provide education and promote behavior change among high-risk individuals and groups. In addition, medical providers should be encouraged and assisted to properly diagnose and treat gonorrhea in their patients. New guidelines for managing patients with gonorrhea were published by CDC in May 2002, and are available at <a href="http://www.cdc.gov/std/treatment/default.htm">http://www.cdc.gov/std/treatment/default.htm</a>. Because gonococcal infections among women often are asymptomatic, an important component of gonorrhea control continues to be the screening of women at high risk for STDs.9

## Chlamydia

Large numbers of Missourians are infected with *Chlamydia trachomatis* each year; 16,181 chlamydia cases were reported in the state in 2002, and many additional persons were undoubtedly infected but not diagnosed and reported. Because of incomplete information, the race of about one-fifth of reported cases is not known. However, based on available data, it is evident that blacks are disproportionately affected by chlamydia, although not to the extent seen with syphilis and gonorrhea. The rate for cases reported in 2002 in blacks (1,256.7 cases per 100,000) was approximately 11 times the rate for cases in whites (115.3). For all racial groups, the largest numbers of cases are reported from persons in their late teens and early twenties; among both white and black females, the late teens is the age group with the most reported cases.

In 2002, the largest numbers (43.5%) of chlamydia cases were reported from Outstate Missouri, followed by St. Louis City (19.8%), St. Louis County (18.5%), and Kansas City (18.2%). However, the highest case rates were in St. Louis City (919.6 cases per 100,000), followed by Kansas City (666.5), St. Louis County (295.2), and Outstate Missouri (185.7). Only two Missouri counties did not report a chlamydia case in 2002. The annual number of reported chlamydia cases increased dramatically from 1985 through 1990, reflecting a marked increase in chlamydia testing during this period. Since 1990, the number of cases reported each year has, in general, continued to increase although at a much slower rate. The 16,181 cases reported in 2002 represented a 16.0% increase from the 13,949 cases reported the preceding year.

In 2002, Missouri ranked 23<sup>rd</sup> among the 50 states in rates of reported chlamydia cases (289.2 cases per 100,000 population), slightly above the national rate of 288.6 cases. St. Louis City ranked 5<sup>th</sup> and Kansas City (Jackson County) 13<sup>th</sup> among U.S. cities of >200,000 population in reported rates of chlamydia cases.<sup>18</sup>

#### Comment:

Because chlamydial infection frequently occurs without symptoms, the disease is often not diagnosed, or, in some instances, not diagnosed until complications develop. Consequently, screening of persons at increased risk for *C. trachomatis* infection, such as young, sexually active women, is very important in finding infected persons so that they can be treated and further spread of infection halted, and also so that the extent of the infection can be determined. The numbers of chlamydia cases reported, and their distribution, significantly depend on where and in what populations screening is taking place. In this regard, the Missouri Infertility Prevention Project (MIPP) has been important in making chlamydia screening available to large numbers of young women throughout the state. This results in many additional infected individuals being detected, thus providing a more representative picture of chlamydia in Missouri. However, many women who are at risk for this infection are still not being tested, reflecting the lack of awareness among some health care providers and the limited resources available to support screening. Chlamydia screening and reporting are likely to expand further in response to the recently implemented Health Plan Employer Data and Information Set (HEDIS) measure for chlamydia screening of sexually active women 15 through 25 years of age who are provided medical care through managed care organizations.<sup>18</sup>

In parts of the United States where large-scale chlamydia screening programs have been instituted, prevalence of the disease has declined substantially. There is also evidence that screening and treatment of chlamydial cervical infection can reduce the likelihood of PID. The 2000 STD treatment guidelines from CDC state that "sexually active adolescent women should be screened for chlamydial infection at least annually, even if symptoms are not present. Annual screening of all sexually active women aged 20–25 years is also recommended, as is screening of older women with risk factors (e.g., those who have a new sex partner and those with multiple sex partners). An appropriate sexual risk assessment should always be conducted and may indicate more frequent screening for some women."

Prevention of new chlamydial infections should be an important priority and, besides screening of high risk women, can include efforts to provide education and promote behavior change among high-risk and potentially high-risk groups. In addition, medical providers should be encouraged and assisted to properly diagnose and treat chlamydia in their patients (the new guidelines<sup>9</sup> for managing patients with chlamydia, published by CDC in May 2002, are available at <a href="http://www.cdc.gov/std/treatment/default.htm">http://www.cdc.gov/std/treatment/default.htm</a>).

#### **Syphilis**

## **Primary and Secondary Syphilis**

The annual number of reported cases of primary and secondary (P&S) syphilis has been decreasing since 1993. The 26 cases of P&S syphilis reported in Missouri in 2001 represented a 10.3% decrease from the 29 cases reported the preceding year. (An additional 33 cases of early latent syphilis [duration of less than 1 year] were reported during 2001, a 36.5% decrease from the 52 cases reported in 2000.) Blacks continue to be very disproportionately affected by syphilis, with few P&S syphilis cases being reported in whites (only 5 cases in 2001). The average age at time of diagnosis is higher for reported cases of P&S syphilis as compared to reported cases of chlamydia or gonorrhea, and a noticeable proportion of cases are seen in persons greater than 35 years of age. In 2001, 15 (57.7%) of the 26 reported P&S syphilis cases were from St. Louis City, followed by 5 (19.2%) cases from Kansas City, 4 (15.4%) cases from the Outstate area, and 1 (3.8%) case from St. Louis County. The highest rates of

reported P&S syphilis cases were in St. Louis City; much lower rates were seen in Kansas City, St. Louis County, and the Outstate area. Only 6 of the state's 114 counties (and St. Louis City) reported P&S syphilis cases in 2001. In 2000 (the last year for which national data are available), Missouri ranked 29<sup>h</sup> among the 50 states in rates of reported P&S syphilis cases; in addition, St. Louis ranked 26<sup>th</sup> and Kansas City 59<sup>th</sup> among U.S. cities of >200,000 population in reported rates of P&S cases.<sup>18</sup>

The annual number of reported cases of primary and secondary (P&S) syphilis in Missouri has been decreasing since 1993. However, the 34 cases of P&S syphilis reported in 2002 represented a 30.8% increase from the 26 cases reported the preceding year. An additional 51 cases of early latent syphilis (duration of less than 1 year) were reported during 2002, a 54.5% increase from the 33 cases reported in 2001.

Blacks continue to be very disproportionately affected by syphilis (58.8% of the cases reported in 2002), and the rate (3.2 cases per 100,000) is approximately 11 times the rate for whites (0.3). The average age at the time of diagnosis is higher for reported cases of P&S syphilis as compared to reported cases of chlamydia or gonorrhea, and a noticeable proportion of cases are seen in persons greater than 35 years of age. In 2002, 13 (38.2%) of the 34 reported P&S syphilis cases were from St. Louis City, followed by 7 (20.6%) cases each from St. Louis County, Kansas City and the Outstate area. The highest rates of reported P&S syphilis cases were in St. Louis City (3.7 cases per 100,000); much lower rates were seen in Kansas City, St. Louis County, and the Outstate area. Only 9 of the state's 114 counties (and St. Louis City) reported P&S syphilis cases in 2002.

In 2002, Missouri ranked 38th among the 50 states in rates of reported P&S syphilis cases. St. Louis City ranked 29th and Kansas City 46th among U.S. cities of >200,000 population in reported rates of P&S cases. 18

#### **Congenital Syphilis**

In 2002, only one case of congenital syphilis was reported. This case was reported in St. Louis City.

#### Comment:

The clear majority of syphilis cases continue to occur in the St. Louis area (especially St. Louis City). The largest burden of infection is clearly in blacks. In contrast to chlamydia and gonorrhea, cases of P&S syphilis are more likely to be seen in persons in their later 30's and older. The numbers of reported cases of P&S syphilis in Missouri are much smaller in comparison to other STDs such as gonorrhea and chlamydia. However, because of the severe disease that can result from untreated syphilis infection, and because the presence of an ulcerative STD such as syphilis can facilitate the transmission of HIV, and also because of the significant resources that must be devoted to the investigation and follow-up of even a single syphilis case, the control and eventual elimination of this infection remains an important priority. Also, although the number of cases reported in 2002 was small, the potential still remains for the recurrence of significant outbreaks of syphilis in the state.

Prevention of new syphilis infections can include efforts to provide education and promote behavior change among high-risk and potentially high-risk groups. In addition, medical providers should be encouraged and assisted to properly diagnose and treat syphilis in their patients. New guidelines for managing patients with syphilis were published by CDC in May 2002, and are available at <a href="http://www.cdc.gov/std/treatment/default.htm">http://www.cdc.gov/std/treatment/default.htm</a>.

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## **SECTION 1**

## **CORE EPIDEMIOLOGICAL QUESTIONS**

Question 1: What are the Sociodemographic Characteristics of the General Population in Missouri?

Question 2: What is the Scope of the HIV/AIDS and STD Epidemic in Missouri?

Question 3: What are the Indicators of Risk for HIV/AIDS in Missouri?

Questi	on 1:			
What	are the Soci al Populatio		racteristic	es of the

## **Missouri Demographic Summary**

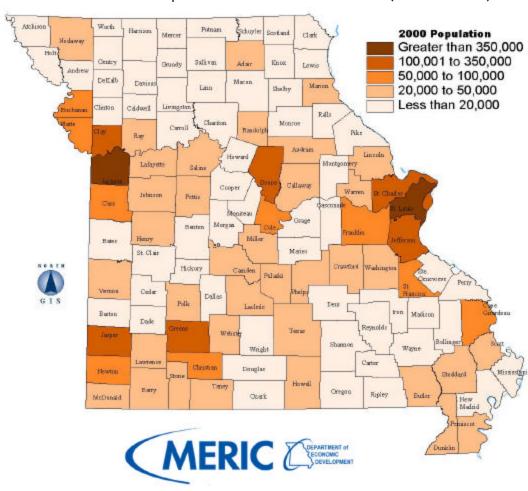
## **Based On Data From Census 2000**

All the material in this section is from the Missouri Economic Research and Information Center (MERIC) <a href="http://www.ecodev.state.mo.us/business/researchandplanning/indicators/population/index.shtml">http://www.ecodev.state.mo.us/business/researchandplanning/indicators/population/index.shtml</a>

Missouri's total resident population in Census 2000 was 5,595,211, ranking the state 17th among all U.S. states. St. Louis County remained the state's largest county, surpassing the million-population threshold.

Resident Population Characteristics of Selected Missouri Counties (Census 2000)

Ten Large	st Counties	Ten Smalle	est Counties
County	Population	County	Population
St. Louis	1,016,315	Worth	2,382
Jackson	654,880	Mercer	3,757
St. Louis City	348,189	Schuyler	4,170
St. Charles	283,883	Knox	4,361
Greene	240,391	Scotland	4,983
Jefferson	198,099	Putnam	5,223
Clay	184,006	Holt	5,351
Boone	135,454	Carter	5,941
Jasper	104,686	Atchison	6,430
Franklin	93,807	Reynolds	6,689
Largest	Growth	Smalles	t Growth
County	Population	County	Population
St. Charles	70,976	St. Louis City	-48,496
Greene	32,442	Pemiscot	-1,874
Clay	30,595	New Madrid	-1,168
Jefferson	26,719	Atchison	-1,027
Boone	23,075	Mississippi	-1,015
St. Louis	22,786	Chariton	-764
Jackson	21,648	Holt	-683
Christian	21,641	Carroll	-463
Cass	18,284	Shelby	-143
Platte	15,914	Pulaski	-142
Fastest	Growth	Slowes	t Growth
County	Percentage Change	County	Percentage Change
Christian	66.3%	Atchison	-13.8%
Taney	55.3%	St. Louis City	-12.2%
Stone	50.2%	Holt	-11.3%
Lincoln	34.8%	Pemiscot	-8.5%
Camden	34.8%	Chariton	-8.3%
St. Charles	33.3%	Mississippi	-7.0%
Webster	30.7%	New Madrid	-5.6%
Cass	28.7%	Carroll	-4.3%
McDonald	28.0%	Knox	-2.7%
Platte	27.5%	Worth	-2.4%



Total Resident Population of Missouri Counties (Census 2000)

#### **Population Changes**

Missouri's population grew by 478,138 persons since 1990—a growth rate of 9.3 percent. This growth was larger than in any other decade this past century. As in recent decades, there were substantial population gains in the Ozarks and in the state's metropolitan areas. But there also was new growth in many rural counties north and south. Regional population shifts show a continued expansion outward from older, larger urban centers. In fact, the population outside Missouri's combined municipal areas grew at a faster rate in the 1990s (12.1%) than the combined population within them (7.9%).

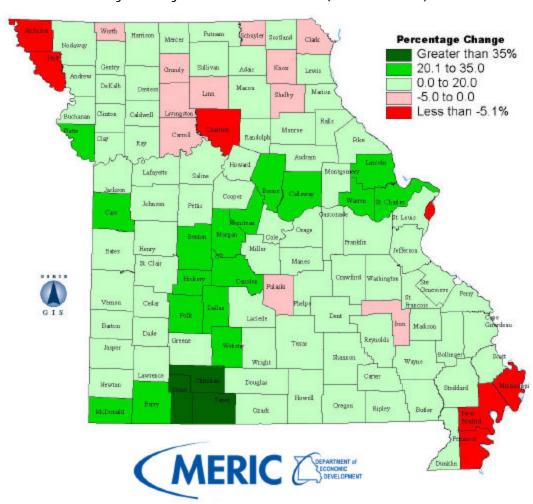
Among Missouri's counties, Christian County grew by the highest percentage rate (66.3%) and St. Charles County gained the most population (70,976) last decade. Worth County is Missouri's least populous county, with 2,382 citizens. Pemiscot County lost 1,874 citizens, the most of any county outside St. Louis City. Atchison County suffered through the fastest rate of decline, losing 13.8% of its residents.

Resident Population in Missouri by HIV Region and County in 2000 and 1990, and Change in Population From 1990 To 2000 (Census 2000)

	j		1990-2000	) Change			
<b>HIV</b> Region	County	2000	1990	Total	Rank	Percent	Rank
	Missouri	5,595,211	5,117,073	478,138	-	9.3%	-
				•			
Kansas City	Bates	16,653	15,025	1,628	53	10.8%	54
<b>Kansas City</b>	Benton	17,180	13,859	3,321	35	24.0%	14
<b>Kansas City</b>	Cass	82,092	63,808	18,284	9	28.7%	8
<b>Kansas City</b>	Clay	184,006	153,411	30,595	3	19.9%	21
<b>Kansas City</b>	Henry	21,997	20,044	1,953	45	9.7%	57
<b>Kansas City</b>	Jackson	654,880	633,232	21,648	7	3.4%	79
<b>Kansas City</b>	Johnson	48,258	42,514	5,744	25	13.5%	42
<b>Kansas City</b>	Lafayette	32,960	31,107	1,853	47	6.0%	75
<b>Kansas City</b>	Platte	73,781	57,867	15,914	10	27.5%	10
Kansas City	Ray	23,354	21,971	1,383	59	6.3%	72
<b>North Central</b>	Adair	24,977	24,577	400	84	1.6%	90
<b>North Central</b>	Audrain	25,853	23,599	2,254	43	9.6%	58
<b>North Central</b>	Boone	135,454	112,379	23,075	5	20.5%	20
<b>North Central</b>	Callaway	40,766	32,809	7,957	18	24.3%	12
<b>North Central</b>	Camden	37,051	27,495	9,556	16	34.8%	5
<b>North Central</b>	Chariton	8,438	9,202	-764	110	-8.3%	111
<b>North Central</b>	Clark	7,416	7,547	-131	104	-1.7%	104
<b>North Central</b>	Cole	71,397	63,579	7,818	19	12.3%	47
<b>North Central</b>	Cooper	16,670	14,835	1,835	48	12.4%	46
<b>North Central</b>	Gasconade	15,342	14,006	1,336	60	9.5%	59
<b>North Central</b>	Howard	10,212	9,631	581	80	6.0%	74
<b>North Central</b>	Knox	4,361	4,482	-121	103	-2.7%	107
<b>North Central</b>	Lewis	10,494	10,233	261	87	2.6%	85
<b>North Central</b>	Linn	13,754	13,885	-131	104	-0.9%	101
<b>North Central</b>	Macon	15,762	15,345	417	83	2.7%	83
<b>North Central</b>	Maries	8,903	7,976	927	71	11.6%	48
<b>North Central</b>	Marion	28,289	27,682	607	78	2.2%	88
<b>North Central</b>	Miller	23,564	20,700	2,864	39	13.8%	38
North Central	Moniteau	14,827	12,298	2,529	40	20.6%	19
North Central	Monroe	9,311	9,104	207	89	2.3%	87
North Central	Montgomery	12,136	11,355	781	75	6.9%	70
<b>North Central</b>	Morgan	19,309	15,574	3,735	33	24.0%	13
<b>North Central</b>	Osage	13,062	12,018	1,044	69	8.7%	64
<b>North Central</b>	Pettis	39,403	35,437	3,966	32	11.2%	51
<b>North Central</b>	Pike	18,351	15,969	2,382	42	14.9%	32
<b>North Central</b>	Putnam	5,223	5,079	144	93	2.8%	81
<b>North Central</b>	Ralls	9,626	8,476	1,150	67	13.6%	40
<b>North Central</b>	Randolph	24,663	24,370	293	86	1.2%	91

	1990-2000 Change						
<b>HIV Region</b>	County	2000	1990	Total	Rank	Percent	Rank
<b>North Central</b>	Saline	23,756	23,523	233	88	1.0%	92
<b>North Central</b>	Schuyler	4,170	4,236	-66	101	-1.6%	103
North Central	Scotland	4,983	4,822	161	91	3.3%	80
<b>North Central</b>	Shelby	6,799	6,942	-143	107	-2.1%	105
<b>North Central</b>	Sullivan	7,219	6,326	893	72	14.1%	37
Northwest	Andrew	16,492	14,632	1,860	46	12.7%	45
Northwest	Atchison	6,430	7,457	-1,027	112	-13.8%	115
Northwest	Buchanan	85,998	83,083	2,915	38	3.5%	78
Northwest	Caldwell	8,969	8,380	589	79	7.0%	69
Northwest	Carroll	10,285	10,748	-463	108	-4.3%	108
Northwest	Clinton	18,979	16,595	2,384	41	14.4%	35
Northwest	Daviess	8,016	7,865	151	92	1.9%	89
Northwest	DeKalb	11,597	9,967	1,630	52	16.4%	28
Northwest	Gentry	6,861	6,848	13	97	0.2%	96
Northwest	Grundy	10,432	10,536	-104	102	-1.0%	102
Northwest	Harrison	8,850	8,469	381	85	4.5%	77
Northwest	Holt	5,351	6,034	-683	109	-11.3%	113
Northwest	Livingston	14,558	14,592	-34	99	-0.2%	98
Northwest	Mercer	3,757	3,723	34	95	0.9%	94
Northwest	Nodaway	21,912	21,709	203	90	0.9%	93
Northwest	Worth	2,382	2,440	-58	100	-2.4%	106
Southeast	Bollinger	12,029	10,619	1,410	58	13.3%	43
Southeast	Butler	40,867	38,765	2,102	44	5.4%	76
Southeast	Cape Girardeau	68,693	61,633	7,060	21	11.5%	49
Southeast	Carter	5,941	5,515	426	82	7.7%	65
Southeast	Crawford	22,804	19,173	3,631	34	18.9%	23
Southeast	Dunklin	33,155	33,112	43	94	0.1%	97
Southeast	Iron	10,697	10,726	-29	98	-0.3%	99
Southeast	Madison	11,800	11,127	673	77	6.0%	73
Southeast	Mississippi	13,427	14,442	-1,015	111	-7.0%	110
Southeast	New Madrid	19,760	20,928	-1,168	113	-5.6%	109
Southeast	Pemiscot	20,047	21,921	-1,874	114	-8.5%	112
Southeast	Perry	18,132	16,648	1,484	56	8.9%	63
Southeast	Reynolds	6,689	6,661	28	96	0.4%	95
Southeast	Ripley	13,509	12,303	1,206	64	9.8%	56
Southeast	Scott	40,422	39,376	1,046	68	2.7%	84
Southeast	St. Francois	55,641	48,904	6,737	22	13.8%	39
Southeast	Ste. Genevieve	17,842	16,037	1,805	49	11.3%	50
Southeast	Stoddard	29,705	28,895	810	74	2.8%	82

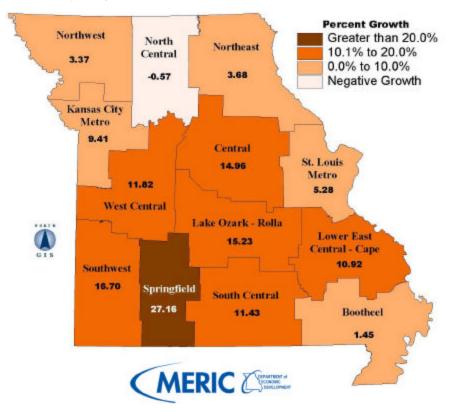
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Percent Change in Missouri Resident Population by County From 1990 to 2000 (Census 2000)

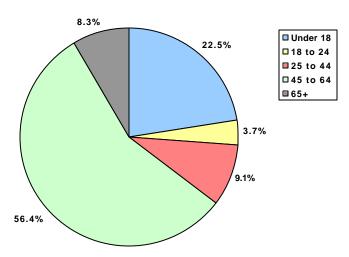
The greatest population growth was 27.16 percent in the Springfield region. Other regions in Missouri experiencing rapid growth in that period were the Southwest (16.7 percent), Lake Ozark-Rolla (15.2 percent), and Central (15.0 percent) regions. The North Central region had negative growth (-0.57 percent) followed by slow growth in the Bootheel (1.45 percent), Northwest (3.37 percent), and Northeast (3.68 percent) regions. [Note that these regions are <u>not</u> the same as the HIV Regions used in some of the tables in this section and in other sections of the 2001 Epidemiologic Profiles.]

Percent Change in Missouri Resident Population by Region From 1990 to 2000 (Census 2000)



Of the 478,310 person increase in Missouri between 1990 and 2000, more than half (56.4 percent) was in the 45 to 64 year old age bracket. The Under 18 age bracket followed (22.5 percent). The smallest portion of the overall Missouri population increase was in the 18 to 24 age bracket (3.7 percent).





Within the age brackets, and taken into account the total population, the 45 to 64 group had tremendous growth in the state from 1990. Overall growth for this age bracket in Missouri between 1990 and 2000 was 27.6 percent. This increase is not surprising as it contains the Baby Boomer generation. The Baby Boomer generation is defined as those born between 1946 and 1964. It is likely that the 45 to 64 age bracket will continue to grow in the next decade as the second half of the Baby Boomer generation reaches this age bracket.

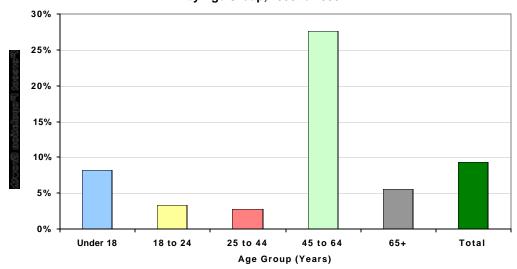
The Under 18 age group had the second largest growth rate of 8.2 percent. This group includes the children, or even grandchildren, of the Baby Boomers.

The largest age category in Missouri in 1990 as well as 2000 continues to be the 25 to 44 age bracket. This group realized a modest 2.8 percent growth during the time period, the least of any age category. The pattern of growth within the age brackets suggests that by the next census, the 45 to 64 age bracket may become the largest age group in the state.

Growth of Missouri Resident Population by Age Group, 1990 - 2000

Age Group	1990	2000	Population Increase	Percent Change
Under 18	1,319,066	1,426,779	107,713	8.2%
18 to 24	519,675	537,140	17,465	3.4%
25 to 44	1,584,566	1,628,206	43,640	2.8%
45 to 64	978,098	1,247,732	269,634	27.6%
65+	715,496	755,353	39,857	5.6%
Total	5,116,901	5,595,210	478,309	9.3%

#### Percent Growth of Missouri Resident Population by Age Group, 1990 to 2000



Growth in the 45 to 64 age bracket was also significant regionally. Within the four regions having the largest population growth between 1990 and 2000, the 45 to 64 age bracket contributed most to the population increase in each region. In the Central region, 48.4 percent of the population increase was from the 45 to 64 group, more than twice that of any other group. Similar patterns were seen in the Lake Ozark-Rolla (45.9 percent), Southwest (37.4 percent), and Springfield (35.0 percent) regions.

It is clear that the Baby Boomer generation has had a significant impact on population trends in the last ten years. As this generation ages, continued growth in the 45 to 64 bracket followed by increases in the 65+ group can be expected.

## **Missouri Minority Populations: Blacks**

Missouri's largest race category, Black or African American, reported significant population increases during the 1990's. The black population grew 14.5% from 549,719 in 1990 to 629,391 in 2000. In contrast, Missouri's total population grew by 9.3% from just over 5.1 million in 1990 to slightly under 5.6 million in 2000.

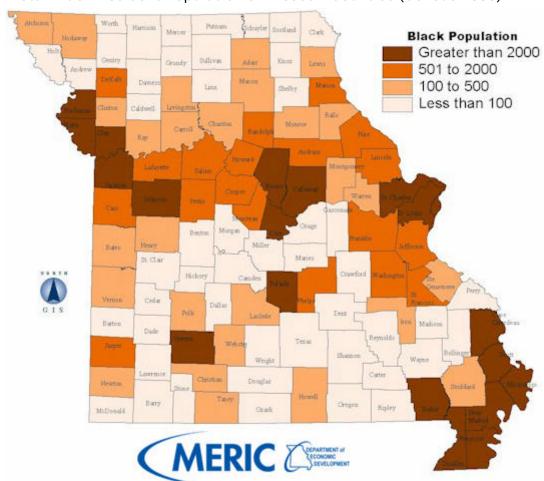
**Black Resident Population of Selected Missouri Counties (Census 2000)** 

		ted Missouri Counties (Censu	
Ten Largest Co		Ten Smallest Co	
County	Population	County	Population
St. Louis County	193,306	Mercer County	7
City of St. Louis	178,266	Holt County	6
Jackson County	152,391	Ripley County	6
Boone County	11,572	Carter County	5
St. Charles County	7,635	Clark County	5
Cole County	7,084	Daviess County	4
Greene County	5,426	Knox County	4
Pemiscot County	5,259	Worth County	4
Pulaski County	4,935	Putnam County	3
Clay County	4,894	Schuyler County	2
Ten Largest G		Ten Smallest G	
County	Population	County	Population
St. Louis County	53,711	City of St. Louis	-10,399
Jackson County	16,084	Pulaski County	-770
Boone County	3,165	Johnson County	-382
St. Charles County	2,681	Pemiscot County	-338
Cole County	2,235	New Madrid County	- 2 4 4
Clay County	2,185	Stoddard County	-139
Greene County	1,665	Lafayette County	-133
Platte County	1,348	Randolph County	-106
Buchanan County	1,098	Saline County	-79
Pike County	834	Lewis County	-78
Ten Fastest Gi	owth	Ten Slowest G	rowth
County	Percentage Change	County	Percentage Change
Cedar County	1366.7%	Osage County	-46.2%
Reynolds County	1066.7%	Stoddard County	-34.0%
Crawford County	1000.0%	Knox County	-33.3%
Sullivan County	900.0%	Linn County	-29.3%
McDonald County	850.0%	Lewis County	-22.7%
Taney County	762.5%	Ralls County	-22.5%
Ozark County	600.0%	Chariton County	-20.2%
Dent County	490.0%	Carroll County	-19.9%
Carter County	400.0%	Johnson County	-15.5%
Douglas County	366.7%	Lafayette County	-15.1%

Cedar (1,366.7%), Reynolds (1,066.7%), and Crawford (1,000%) counties reported enormous percent increases since 1990 in Black population. St. Louis County reported the largest increase in persons - 53,711, a 38.5% increase; followed by Jackson County with 16,084, an 11.8% increase; and Boone County with 3,165, a 37.6% increase. Thirty-two of Missouri's 114 counties reported percentage increases from 1990 of over 100%, with three reporting increases of 1,000% or higher.

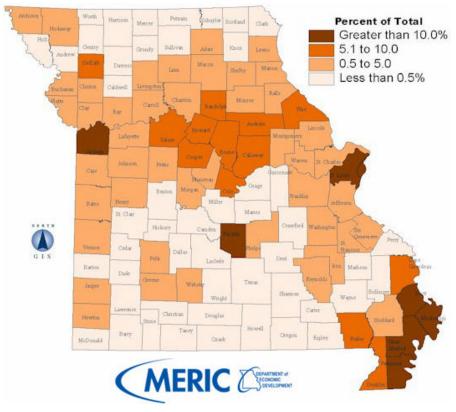
Not all of Missouri counties experienced positive growth in Black population. Osage (-46.2%), Stoddard (-34.0%), and Knox (-33.3%) counties experienced the largest percent declines in Black population. St. Louis City experienced the largest decline in the number of Black persons, 10,399, a 5.5% decrease; followed by Pulaski County with a loss of 770 persons, a 13.5% decrease; and Johnson County with a loss of 382 persons, a 15.5% decrease. Overall, twenty-five of Missouri's 114 counties and St. Louis City reported negative growth in the Black population, while three counties reported no change.

Census data for the 1990 and 2000 census are not directly comparable because individuals could report only one race in the 1990 census and could report multiple races in the 2000 census. Thus the difference in population is due both to changes in the census questionnaire and to real population change.

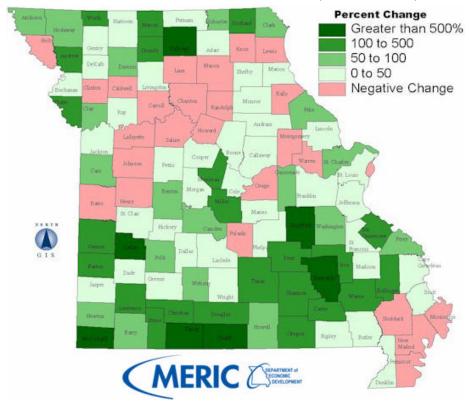


Total Black Resident Population of Missouri Counties (Census 2000)

Percent of Total Resident Population of Missouri Counties That is Black (Census 2000)



Percent Change in Black Resident Population for Missouri Counties From 1990 to 2000 (Census 2000)



Resident Black Population in Missouri by HIV Region and County in 2000 and 1990, and Change in Black Population From 1990 To 2000 (Census 2000)

HIV Region	County	2000 Total	2000 Black	1990 Black	<b>Total Change</b>	% Change
ni v kegion	County	Population	Population	Population	from 1990	from 1990
	Missouri	5,595,211	629,391	549,719	79,672	14.5%
<b>Kansas City</b>	Bates	16,653	101	108	-7	-6.5%
<b>Kansas City</b>	Benton	17,180	25	13	12	92.3%
<b>Kansas City</b>	Cass	82,092	1,166	687	479	69.7%
<b>Kansas City</b>	Clay	184,006	4,894	2,709	2,185	80.7%
<b>Kansas City</b>	Henry	21,997	225	227	-2	-0.9%
<b>Kansas City</b>	Jackson	654,880	152,391	136,307	16,084	11.8%
<b>Kansas City</b>	Johnson	48,258	2,089	2,471	-382	-15.5%
<b>Kansas City</b>	Lafayette	32,960	749	882	-133	-15.1%
<b>Kansas City</b>	Platte	73,781	2,574	1,226	1,348	110.0%
<b>Kansas City</b>	Ray	23,354	341	303	38	12.5%
<b>North Central</b>	Adair	24,977	299	223	76	34.1%
<b>North Central</b>	Audrain	25,853	1,859	1,421	438	30.8%
<b>North Central</b>	Boone	135,454	11,572	8,407	3,165	37.6%
<b>North Central</b>	Callaway	40,766	2,307	1,582	725	45.8%
<b>North Central</b>	Camden	37,051	95	58	37	63.8%
<b>North Central</b>	Chariton	8,438	269	337	-68	-20.2%
<b>North Central</b>	Clark	7,416	5	3	2	66.7%
<b>North Central</b>	Cole	71,397	7,084	4,849	2,235	46.1%
<b>North Central</b>	Cooper	16,670	1,493	1,150	343	29.8%
<b>North Central</b>	Gasconade	15,342	18	11	7	63.6%
<b>North Central</b>	Howard	10,212	699	733	-34	-4.6%
<b>North Central</b>	Knox	4,361	4	6	-2	-33.3%
<b>North Central</b>	Lewis	10,494	265	343	-78	-22.7%
<b>North Central</b>	Linn	13,754	82	116	-34	-29.3%
<b>North Central</b>	Macon	15,762	349	363	-14	-3.9%
<b>North Central</b>	Maries	8,903	29	27	2	7.4%
<b>North Central</b>	Marion	28,289	1,308	1,251	57	4.6%
<b>North Central</b>	Miller	23,564	65	23	42	182.6%
<b>North Central</b>	Moniteau	14,827	561	158	403	255.1%
<b>North Central</b>	Monroe	9,311	357	357	0	0.0%
<b>North Central</b>	Montgomery	12,136	248	289	-41	-14.2%
<b>North Central</b>	Morgan	19,309	98	94	4	4.3%
<b>North Central</b>	Osage	13,062	21	39	-18	-46.2%
<b>North Central</b>	Pettis	39,403	1,197	1,172	25	2.1%
<b>North Central</b>	Pike	18,351	1,682	848	834	98.3%
<b>North Central</b>	Putnam	5,223	3	2	1	50.0%
<b>North Central</b>	Ralls	9,626	107	138	-31	-22.5%
<b>North Central</b>	Randolph	24,663	1734	1840	-106	-5.8%

HIV Region	County				Total Change	_
THV Region	County	Population	Population	Population	from 1990	from 1990
<b>North Central</b>	Saline	23,756	1,280	1,359	-79	-5.8%
<b>North Central</b>	Schuyler	4,170	2	1	1	100.0%
<b>North Central</b>	Scotland	4,983	10	3	7	233.3%
<b>North Central</b>	Shelby	6,799	66	56	10	17.9%
<b>North Central</b>	Sullivan	7,219	10	1	9	900.0%
Northwest	Andrew	16,492	69	32	37	115.6%
Northwest	Atchison	6,430	132	87	45	51.7%
Northwest	Buchanan	85,998	3,751	2,653	1,098	41.4%
Northwest	Caldwell	8,969	12	14	-2	-14.3%
Northwest	Carroll	10,285	177	221	-44	-19.9%
Northwest	Clinton	18,979	288	337	-49	-14.5%
Northwest	Daviess	8,016	4	2	2	100.0%
Northwest	DeKalb	11,597	1,028	749	279	37.2%
Northwest	Gentry	6,861	8	6	2	33.3%
Northwest	Grundy	10,432	42	11	31	281.8%
Northwest	Harrison	8,850	12	8	4	50.0%
Northwest	Holt	5,351	6	7	-1	-14.3%
Northwest	Livingston	14,558	339	319	20	6.3%
Northwest	Mercer	3,757	7	3	4	133.3%
Northwest	Nodaway	21,912	295	166	129	77.7%
Northwest	Worth	2,382	4	1	3	300.0%
Southeast	Bollinger	12,029	25	12	13	108.3%
Southeast	Butler	40,867	2,132	1,983	149	7.5%
Southeast	Cape Girardeau	68,693	3,624	2,993	631	21.1%
Southeast	Carter	5,941	5	1	4	400.0%
Southeast	Crawford	22,804	33	3	30	1000.0%
Southeast	Dunklin	33,155	2,879	2,635	244	9.3%
Southeast	Iron	10,697	167	49	118	240.8%
Southeast	Madison	11,800	15	10	5	50.0%
Southeast	Mississippi	13,427	2,757	2,804	-47	-1.7%
Southeast	New Madrid	19,760	3,035	3,279	-244	-7.4%
Southeast	Pemiscot	20,047	5,259	5,597	-338	-6.0%
Southeast	Perry	18,132	33	17	16	94.1%
Southeast	Reynolds	6,689	35	3	32	1066.7%
Southeast	Ripley	13,509	6	6	0	0.0%
Southeast	Scott	40,422	4,246	3,499	747	21.3%
Southeast	St. Francois	55,641	1,126	969	157	16.2%
Southeast	Ste. Genevieve	17,842	128	45	83	184.4%
Southeast	Stoddard	29,705	270	409	-139	-34.0%

HIV Region	County		2000 Black Population		Total Change from 1990	% Change from 1990
Southeast	Washington	23,344	578	378	200	52.9%
Southeast	Wayne	13,259	22	8	14	175.0%
Southwest	Barry	34,010	39	25	14	56.0%
Southwest	Barton	12,541	36	11	25	227.3%
Southwest	Cedar	13,733	44	3	41	1366.7%
Southwest	Christian	54,285	145	35	110	314.3%
Southwest	Dade	7,923	21	20	1	5.0%
Southwest	Dallas	15,661	19	16	3	18.8%
Southwest	Dent	14,927	59	10	49	490.0%
Southwest	Douglas	13,084	14	3	11	366.7%
Southwest	Greene	240,391	5,426	3,761	1,665	44.3%
Southwest	Hickory	8,940	7	5	2	40.0%
Southwest	Howell	37,238	114	62	52	83.9%
Southwest	Jasper	104,686	1,551	1,155	396	34.3%
Southwest	Laclede	32,513	138	96	42	43.8%
Southwest	Lawrence	35,204	95	24	71	295.8%
Southwest	McDonald	21,681	38	4	34	850.0%
Southwest	Newton	52,636	312	175	137	78.3%
Southwest	Oregon	10,344	10	3	7	233.3%
Southwest	Ozark	9,542	14	2	12	600.0%
Southwest	Phelps	39,825	596	398	198	49.7%
Southwest	Polk	26,992	122	70	52	74.3%
Southwest	Pulaski	41,165	4,935	5,705	-770	-13.5%
Southwest	Shannon	8,324	14	3	11	366.7%
Southwest	St. Clair	9,652	22	22	0	0.0%
Southwest	Stone	28,658	21	6	15	250.0%
Southwest	Taney	39,703	138	16	122	762.5%
Southwest	Texas	23,003	49	16	33	206.3%
Southwest	Vernon	20,454	125	59	66	111.9%
Southwest	Webster	31,045	359	190	169	88.9%
Southwest	Wright	17,955	50	36	14	38.9%
St. Louis	Franklin	93,807	882	752	130	17.3%
St. Louis	Jefferson	198,099	1,354	1,209	145	12.0%
St. Louis	Lincoln	38,944	677	591	86	14.6%
St. Louis	St. Charles	283,883	7,635	4,954	2,681	54.1%
St. Louis	St. Louis City	348,189	178,266	188,665	-10,399	-5.5%
St. Louis	St. Louis	1,016,315	193,306	139,595	53,711	38.5%
St. Louis	Warren	24,525	476	513	-37	-7.2%

# **Missouri Minority Populations: Hispanics**

Missouri's Hispanic population grew by a staggering 92.2% from 61,698 in 1990 to 118,592 in 2000. In contrast, Missouri's total population grew by 9.3% from just over 5.1 million in 1990 to slightly under 5.6 million in 2000.

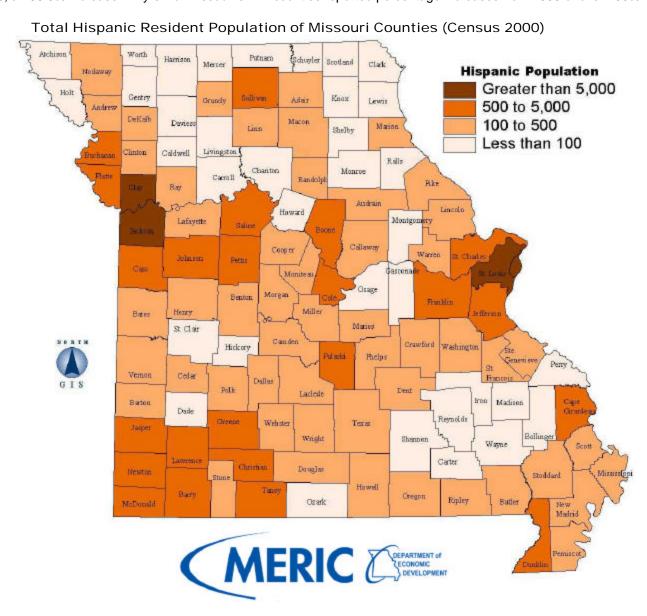
Hispanic Resident Population of Selected Missouri Counties (Census 2000)

		Ten Smallest Counties							
Ten Largest									
County	Population	County	Population						
Jackson County	35,160	Atchison County	43						
St. Louis County	14,577	Shelby County	43						
City of St. Louis	7,022	Ralls County	42						
Clay County	6,594	Scotland County	42						
Greene County	4,434	Putnam County	32						
St. Charles County	4,176	Schuyler County	27						
Jasper County	3,615	Knox County	26						
<b>Boone County</b>	2,413	Holt County	21						
Pulaski County	2,404	<b>Mercer County</b>	11						
Platte County	2,211	Worth County	7						
Ten Largest	Growth	Ten Smalle	est Growth						
County	Persons	County	Persons						
Jackson County	16,272	Putnam County	8						
St. Louis County	4,766	<b>Holt County</b>	5						
Clay County	3,055	<b>Madison County</b>	4						
Jasper County	2,818	Monroe County	4						
Greene County	2,659	<b>Mercer County</b>	4						
McDonald County	1,909	<b>Bollinger County</b>	-2						
City of St. Louis	1,898	Worth County	-2						
St. Charles County	1,868	Dade County	-9						
Barry County	1,561	<b>Atchison County</b>	-61						
Pettis County	1,258	DeKalb County	-75						
Ten Fastest	Growth	Ten Slowe	st Growth						
County	Percentage Change	County	Percentage Change						
Sullivan County	2164.3%	Daviess County	19.6%						
McDonald County	1577.7%	<b>Nodaway County</b>	14.8%						
Barry County	1027.0%	Linn County	10.6%						
Moniteau County	845.7%	Monroe County	8.3%						
Pettis County	467.7%	<b>Madison County</b>	6.5%						
Lawrence County	466.4%	<b>Bollinger County</b>	-2.9%						
Saline County	404.8%	Dade County	-11.8%						
Taney County	395.9%	Worth County	-22.2%						
<b>Dunklin County</b>	387.6%	DeKalb County	-37.5%						
Jasper County	353.6%	<b>Atchison County</b>	-58.7%						

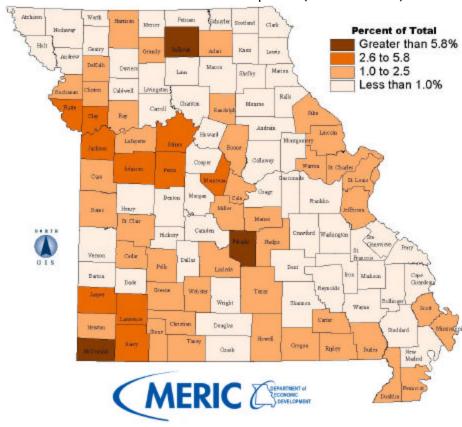
Not all of Missouri counties experienced positive growth in Hispanic populations. Atchison, DeKalb, Worth, Dade, and Bollinger counties reported decreases in Hispanic populations. DeKalb County experienced the largest decline in the number of Hispanic persons, 75, a 37.5% decline. Atchison County experienced the largest percentage loss, a 58.7% decrease with the number of Hispanic persons decreasing by 61.

The Census Bureau admits that census race data for the 1990 and 2000 census are not directly comparable because individuals could only report one race in the 1990 census and could report multiple races in 2000. However, the differences between 1990 and 2000 for the Hispanic or Latino population were not affected because the Hispanic or Latino population may be of any race.

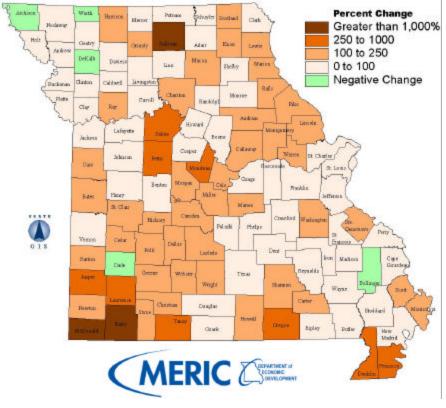
Sullivan (2,164%), McDonald (1,577%), and Barry (1,027%) counties reported enormous percent increases since 1990 in Hispanic population due to expanding employment opportunities. Jackson County reported the largest increase in persons - 16,272, an 86.1% increase; followed by St. Louis County with 4,766, a 48.6% increase; and Clay County with 3,055, an 86.3% increase. Fifty-six of Missouri's 114 counties reported percentage increases from 1990 of over 100%.



#### Percent of Total Resident Population of Missouri Counties That is Hispanic (Census 2000)



# Percent Change in Hispanic Resident Population for Missouri Counties From 1990 to 2000 (Census 2000)



Resident Hispanic Population in Missouri by HIV Region and County in 2000 and 1990, and Change in Hispanic Population From 1990 To 2000 (Census 2000)

and 1990, and	cnange in Hispa	•			(Cerisus 2000)
		1990	)-2000 Char	<del>.                                    </del>	
HIV Region	County	2000	1990	% Change from 1990	Total Change from 1990
	Missouri	118,592	61,698	92.2%	56,894
<b>Kansas City</b>	Bates	179	82	118.3%	97
<b>Kansas City</b>	Benton	153	78	96.2%	75
<b>Kansas City</b>	Cass	1,816	829	119.1%	987
<b>Kansas City</b>	Clay	6,594	3,539	86.3%	3,055
<b>Kansas City</b>	Henry	201	144	39.6%	57
<b>Kansas City</b>	Jackson	35,160	18,888	86.1%	16,272
<b>Kansas City</b>	Johnson	1,407	709	98.4%	698
Kansas City	Lafayette	386	219	76.3%	167
Kansas City	Platte	2,211	1,161	90.4%	1,050
Kansas City	Ray	253	119	112.6%	134
<b>North Central</b>	Adair	315	182	73.1%	133
<b>North Central</b>	Audrain	189	81	133.3%	108
North Central	Boone	2,413	1,226	96.8%	1,187
North Central	Callaway	377	171	120.5%	206
North Central	Camden	346	170	103.5%	176
North Central	Chariton	47	19	147.4%	28
North Central	Clark	52	26	100.0%	26
North Central	Cole	915	447	104.7%	468
North Central	Cooper	143	96	49.0%	47
North Central	Gasconade	64	35	82.9%	29
North Central	Howard	88	45	95.6%	43
North Central	Knox	26	9	188.9%	17
North Central	Lewis	77	26	196.2%	51
North Central	Linn	104	94	10.6%	10
North Central		121	59	105.1%	62
North Central	Maries	103	40	157.5%	63
North Central	Marion	252	118	113.6%	134
North Central	Miller	231	101	128.7%	130
North Central	Moniteau	435	46	845.7%	389
North Central	Monroe	52	48	8.3%	4
North Central	Montgomery	94	45	108.9%	49
North Central	Morgan	161	69	133.3%	92
North Central	Osage	77	56	37.5%	21
North Central	Pettis	1,527	269	467.7%	1,258
North Central	Pike	295	119	147.9%	176
North Central	Putnam	32	24	33.3%	8
North Central	Ralls	42	14	200.0%	28
<b>North Central</b>	Randolph	282	179	57.5%	103

		1990	0-2000 Cha	nge	
HIV Region	County	2000	1990	% Change from 1990	Total Change from 1990
<b>North Central</b>	Saline	1,050	208	404.8%	842
<b>North Central</b>	Schuyler	27	18	50.0%	9
<b>North Central</b>	Scotland	42	12	250.0%	30
<b>North Central</b>	Shelby	43	23	87.0%	20
<b>North Central</b>	Sullivan	634	28	2164.3%	606
Northwest	Andrew	138	103	34.0%	35
Northwest	Atchison	43	104	-58.7%	-61
Northwest	Buchanan	2,086	1,706	22.3%	380
Northwest	Caldwell	67	50	34.0%	17
Northwest	Carroll	73	40	82.5%	33
Northwest	Clinton	205	139	47.5%	66
Northwest	Daviess	55	46	19.6%	9
Northwest	DeKalb	125	200	-37.5%	-75
Northwest	Gentry	44	27	63.0%	17
Northwest	Grundy	165	77	114.3%	88
Northwest	Harrison	89	37	140.5%	52
Northwest	Holt	21	16	31.3%	5
Northwest	Livingston	94	63	49.2%	31
Northwest	Mercer	11	7	57.1%	4
Northwest	Nodaway	155	135	14.8%	20
Northwest	Worth	7	9	-22.2%	-2
Southeast	Bollinger	68	70	-2.9%	-2
Southeast	Butler	412	217	89.9%	195
Southeast	Cape Girardeau	624	313	99.4%	311
Southeast	Carter	72	33	118.2%	39
Southeast	Crawford	176	114	54.4%	62
Southeast	Dunklin	824	169	387.6%	655
Southeast	Iron	62	44	40.9%	18
Southeast	Madison	66	62	6.5%	4
Southeast	Mississippi	129	40	222.5%	89
Southeast	New Madrid	183	93	96.8%	90
Southeast	Pemiscot	315	89	253.9%	226
Southeast	Perry	93	72	29.2%	21
Southeast	Reynolds	55	28	96.4%	27
Southeast	Ripley	132	78	69.2%	54
Southeast	Scott	448	206	117.5%	242
Southeast	St. Francois	447	239	87.0%	208
Southeast	Ste. Genevieve	132	49	169.4%	83
Southeast	Stoddard	231	132	75.0%	99

		1990	)-2000 Cha	nge			
HIV Region	County	2000	1990	% Change from 1990	Total Change from 1990		
Southeast	Washington	170	83	104.8%	87		
Southeast	Wayne	65	44	47.7%	21		
Southwest	Barry	1,713	152	1027.0%	1,561		
Southwest	Barton	119	57	108.8%	62		
Southwest	Cedar	153	58	163.8%	95		
Southwest	Christian	714	216	230.6%	498		
Southwest	Dade	67	76	-11.8%	-9		
Southwest	Dallas	147	65	126.2%	82		
Southwest	Dent	112	89	25.8%	23		
Southwest	Douglas	110	90	22.2%	20		
Southwest	Greene	4,434	1,775	149.8%	2,659		
Southwest	Hickory	68	29	134.5%	39		
Southwest	Howell	450	161	179.5%	289		
Southwest	Jasper	3,615	797	353.6%	2,818		
Southwest	Laclede	401	141	184.4%	260		
Southwest	Lawrence	1,195	211	466.4%	984		
Southwest	McDonald	2,030	121	1577.7%	1,909		
Southwest	Newton	1,147	353	224.9%	794		
Southwest	Oregon	113	32	253.1%	81		
Southwest	Ozark	90	56	60.7%	34		
Southwest	Phelps	485	303	60.1%	182		
Southwest	Polk	350	173	102.3%	177		
Southwest	Pulaski	2,404	1,953	23.1%	451		
Southwest	Shannon	77	22	250.0%	55		
Southwest	St. Clair	95	33	187.9%	62		
Southwest	Stone	298	114	161.4%	184		
Southwest	Taney	962	194	395.9%	768		
Southwest	Texas	221	113	95.6%	108		
Southwest	Vernon	172	102	68.6%	70		
Southwest	Webster	400	140	185.7%	260		
Southwest	Wright	139	61	127.9%	78		
St. Louis	Franklin	678	441	53.7%	237		
St. Louis	Jefferson	2,002	1,151	73.9%	851		
St. Louis	Lincoln	444	219	102.7%	225		
St. Louis	St. Charles	4,176	2,308	80.9%	1,868		
St. Louis	St. Louis	14,577	9,811	48.6%	4,766		
St. Louis	St. Louis City	7,022	5,124	37.0%	1898		
St. Louis	Warren	314	152	106.6%	162		

#### **Missouri Minority Populations: American Indians**

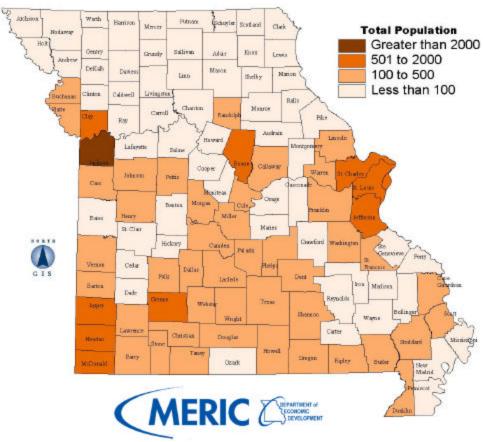
According to the 2000 Census figures, Missouri's population is more diverse than ever, especially urban areas. Missouri's American Indian and Alaska Native race category experienced a 24%, growth from 20,221 in 1990 to 25,076 in 2000. Missouri's total population grew by 9.3% from just over 5.1 million in 1990 to slightly under 5.6 million in 2000.

Jackson County, St. Louis County, and Greene County led Missouri in American Indian and Alaska Native populations with 3,168, 1,717, and 1,583 persons respectively. Scotland, Putnam, and Knox counties reported Missouri's smallest American Indian and Alaska Native population with populations of 7, 5, and 1 respectively. Greene County reported the largest increase in population with a growth of 290 persons, a 22.4% increase since 1990. Worth County reported the largest percent increase, 700%, growing from a population of 1 in 1990 to 8 in 2000. Overall, 21 Missouri counties experienced a percent increase since 1990 of 100% or higher

Not all of Missouri counties experienced positive growth in the Native and Alaskan Indian populations. Jasper County reported the largest decline, losing 127, in Native and Alaskan Indian persons. Ray County and St. Louis City reported losses of 29 and 21 persons respectively. Knox, Putnam and Gentry counties reported the largest percentage decrease in Native and Alaskan populations with 90%, 44.4%, and 40% respectively. Overall 21 Missouri counties reported negative growth, while only Marion County reported no change in populations.

Census data for the 1990 and 2000 census are not directly comparable because individuals could report only one race in the 1990 census and could report multiple races in 2000. Thus the difference in population is due to both the changes in the census questionnaire and to real population change.

# Total Indian Resident Population of Missouri Counties (Census 2000)



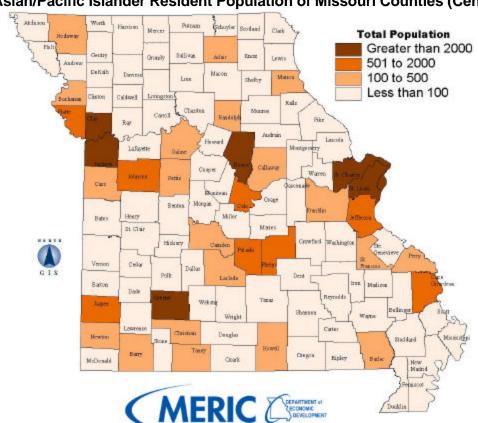
#### Missouri Minority Populations: Asian/Pacific Islanders

According to the 2000 Census figures, Missouri's population is more diverse than ever, especially in urban areas. Missouri's Asian and Pacific Islander race category experienced a 55.1% growth from 41,758 in 1990 to 64,773 in 2000. Missouri's total population grew by 9.3% from just over 5.1 million in 1990 to slightly under 5.6 million in 2000.

St. Louis County, Jackson County and St. Louis City lead Missouri in Asian and Pacific Islander populations with 22,857, 9,580, and 6,985 persons respectively. Knox, Mercer, and Worth Counties reported Missouri's smallest Asian and Pacific Islander populations with populations of 4, 2, and 2, respectively. St. Louis County reported the largest increase in the Asian and Pacific Islander population with a growth of 8,629 persons, a 60.6% increase since 1990. Sullivan County reported the largest percent increase, 650%, growing from a population of 2 in 1990 to 15 in 2000. Overall, 18 Missouri counties reported a percent increase since 1990 of 100% or higher.

Not all of Missouri's counties experienced positive change in Asian and Pacific Islander population. Pulaski County reported the largest decrease in persons, 199, a 15.7% decrease. Polk and Stoddard Counties both reported a loss of 16 persons. Worth, DeKalb, and Atchison Counties reported the largest percentage decreases with 60%, 40%, and 35.7%, respectively. Overall, 17 Missouri counties reported negative growth, while 4 reported no change, in Asian and Pacific Islander populations.

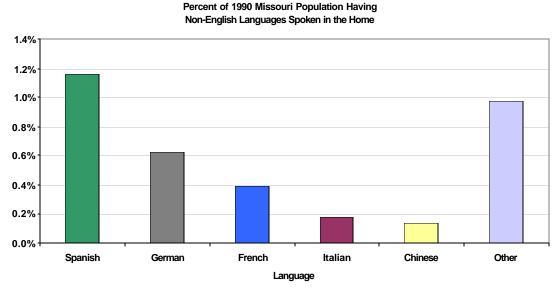
Census data for the 1990 and 2000 census are not directly comparable because individuals could report only one race in the 1990 census and could report multiple races in 2000. Thus the difference in population is due to both the changes in the census questionnaire and to real population change.



Total Asian/Pacific Islander Resident Population of Missouri Counties (Census 2000)

#### The Many Languages of Missouri

According to the 1990 Census, 3.48 percent (178,210) of Missouri's population spoke a language other than English in the home. The five most common languages spoken in the home were Spanish or Spanish Creole (1.16 percent), German (0.63 percent), French or French Creole (0.39 percent), Italian (0.18 percent), and Chinese (0.14 percent).



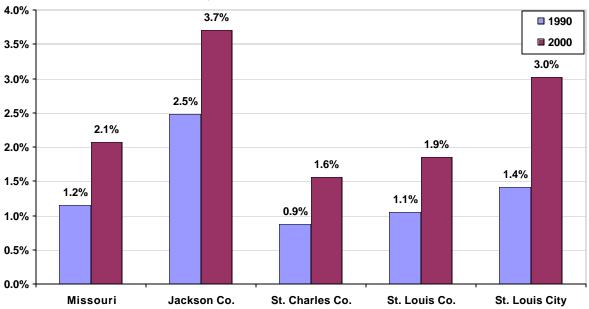
Within Missouri, the counties with the largest percentages of non-English speaking households in 1990 were Pulaski (8.32 percent), Daviess (7.51 percent), Morgan (6.77 percent), Perry (5.94 percent), Boone (5.81 percent) and Jackson (5.11 percent).



Percent of the 1990 Population of Missouri Counties Having Non-English Language Spoken in the Home

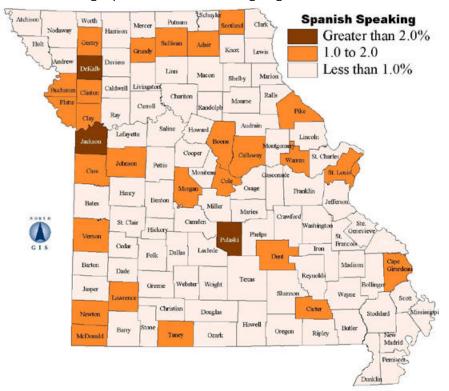
Spanish is the most common non-English language in Missouri. Data from the 1990 Census and 2000 Census estimates show that not only is Spanish dominant versus other non-English languages in Missouri, but also growing as a language used in the home.



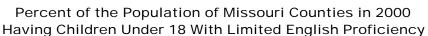


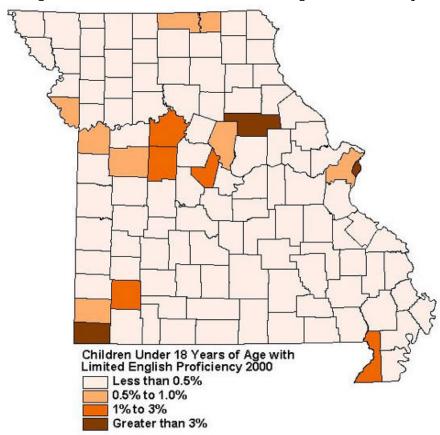
Counties in 1990 with the largest percentages of households speaking Spanish as the "language in the home" were Pulaski (2.92 percent), Jackson (2.48 percent), and Dekalb (2.05 percent) Counties.

Percent of 1990 Population of Missouri Counties Having Spanish as the "Language in the Home"



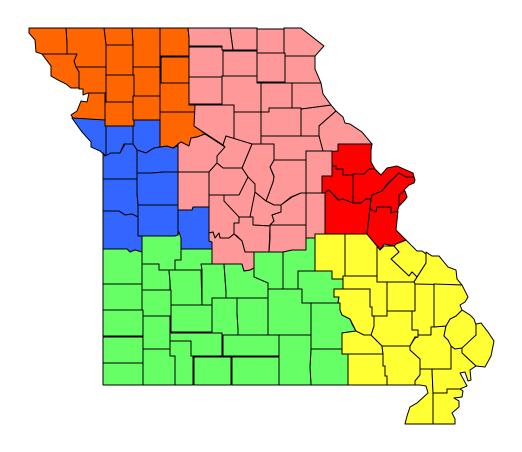
In Missouri, there are children under 18 years of age with limited English language proficiency found in counties across the state. According to data analyzed by MERIC (compiled from the Missouri Departments of Social Services and Elementary and Secondary Education, and Office of Administration), in 2000, the percent of children under 18 in Missouri that have limited English language proficiency was approximately 0.6 percent of the total under age 18 population. The most heavily concentrated locations where children with limited English language proficiency are along the I-70 corridor, around Kansas City and St. Louis, and in extreme southwest Missouri.





<b>Question 2:</b>	
What is the in Missouri	Scope of the HIV/AIDS and STD Epidemic?

# Missouri



# 2000 Population Estimates for Missouri

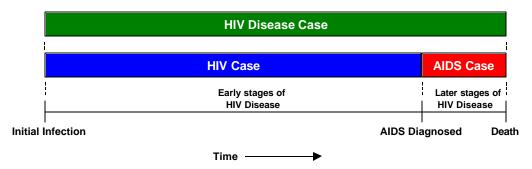
Geographic Area	White		African American		American	Indian	Asian/Pa	cific Is.	Hispa	nic	Total		
St. Louis City	152,666	3.2%	178,266	28.3%	950	3.8%	6,985	10.8%	7,022	5.9%	348,189	6.2%	
St. Louis County	780,830	16.4%	193,306	30.7%	1,717	6.8%	22,857	35.3%	14,577	12.3%	1,016,315	18.2%	
Kansas City	267,856	5.6%	137,870	21.9%	2,122	8.5%	8,661	13.4%	30,602	25.8%	441,441	7.9%	
Outstate	3,546,731	74.7%	119,949	19.1%	20,287	80.9%	26,270	40.6%	66,391	56.0%	3,789,266	67.7%	
Missouri	4 748 083	100.0%	629 391	100.0%	25 076	100.0%	64 773	100.0%	118,592	100.0%	5 595 211	100.0%	

HIV Region	Whi	te	African Ar	nerican	American	Indian	Asian/Pa	cific Is.	Hispa	nic	Total		
St. Louis Region Total	1,547,742	32.6%	382,596	60.8%	4,378	17.5%	33,397	51.6%	29,213	24.6%	2,003,672	35.8%	
Kansas City Region Total	926,963	19.5%	164,555	26.1%	5,710	22.8%	14,892	23.0%	48,360	40.8%	1,155,161	20.6%	
Northwest Region Total	229,694	4.8%	6,174	1.0%	895	3.6%	856	1.3%	3,489	2.9%	240,869	4.3%	
North Central Region Total	654,075	13.8%	35,181	5.6%	2,579	10.3%	6,454	10.0%	10,637	9.0%	711,492	12.7%	
Southwest Region Total	948,191	20.0%	9,456	1.5%	7,496	29.9%	7,496	11.6%	22,281	18.8%	1,006,115	18.0%	
Southeast Region Total	441,401	9.3%	26,375	4.2%	2,051	8.2%	1,597	2.5%	4,704	4.0%	477,763	8.5%	
Missouri	4,748,083	100.0%	629,391	100.0%	25,076	100.0%	64,773	100.0%	118,592	100.0%	5,595,211	100.0%	

Source: U.S. Census Bureau

#### **Introductory Comments**

Figure 1. Relationship of HIV Disease Cases, HIV Cases, and AIDS Cases



From the time a person is first infected with HIV until death, he/she has HIV Disease, and is termed an **HIV Disease Case**.

An HIV Disease Case can be subclassified as either an **HIV Case** (if he/she is in the earlier stages of HIV Disease) or an **AIDS Case** (if he/she is in the later stages of HIV Disease and has met the case definition for AIDS).

- As indicated in Figure 1, each HIV-infected person is an **HIV Disease Case** and, given the lifelong nature of HIV infection, remains an HIV Disease Case for the remainder of his/her life.
- Each HIV Disease Case can be subclassified as <u>either</u> an **HIV Case** <u>or</u> an **AIDS case** (i.e., he/she cannot be both an HIV case and an AIDS case at the same time). Once a person progresses to the later stages of the disease and is diagnosed as an **AIDS case** (by meeting the CDC surveillance case definition), he/she will <u>remain</u> an AIDS case. This is true even if he/she met the AIDS case definition because of a CD4+ lymphocyte count <200 cells/mm³, and later (perhaps as a result of effective antiretroviral therapy) has a CD4+ count >200 cells/mm³.
- **HIV cases** generally represent persons who, in comparison to AIDS cases, were infected more recently. Thus the characteristics of reported HIV cases (e.g., race, gender, exposure category) would be expected to more closely represent the characteristics of persons who are currently at highest risk of being infected.
- AIDS cases represent persons in the later stages of HIV disease who are at risk for developing serious, potentially fatal, opportunistic diseases. Consequently, AIDS cases, as compared to HIV cases, are individuals who are likely to have relatively greater needs for medical and social services, as well as for service coordination assistance.

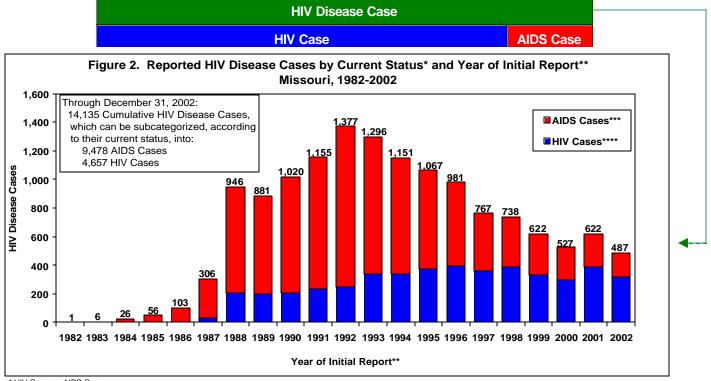
Trends in newly diagnosed AIDS cases (AIDS incidence) reflect, in part, the effects of antiretroviral treatment, since effective treatment given to infected persons while they are still HIV cases will slow the disease process, and consequently slow the progression to AIDS.

• In order to understand the epidemiology of HIV disease in Missouri (i.e., who is being infected, where are these persons located, what are the trends over time), it is necessary to examine not only HIV Disease Cases, but also the subcategories of HIV Cases and AIDS Cases.

#### Magnitude and Impact of the Problem

- From 1982 through 2002, a total of 14,135 HIV Disease cases have been reported in Missouri residents; 5,217 (36.9%) of these persons are known to have died. In 2002, 487 new HIV Disease cases were reported for the first time to public health officials. Figure 2 shows reported HIV Disease cases by current status (HIV case vs. AIDS case) and year of initial report (i.e., the year in which the first report of the person, whether as an HIV case or an AIDS case, was received). (See also the section entitled "**Trends**" on pages 52 and 53.)
- Of these 14,135 HIV Disease cases, 9,478 (67.1%) have met the case definition for AIDS and are thus categorized as AIDS cases; 5,023 (53.0%) of the 9,478 reported AIDS cases are known to have died, and 4,455 (47.0%) are living (see Figure 3).
- During 2002, 123 HIV-related deaths in Missouri residents were reported on death certificates; in 2001, 150 HIVrelated deaths were reported. Figure 4 shows HIV-related deaths by race/ethnicity and year of report for the period from 1990-2002 (see also the section entitled "Trends" on pages 52 and 53).
- In 2002, 360 new AIDS cases were reported. (Note that many of these persons had already, in previous years, been reported as HIV cases. However, during 2002, new reports were received indicating that they now met the case definition for AIDS, and thus they were reclassified as AIDS cases with 2002 as the date of report.) Figure 5 (page 44) shows persons (living and deceased) diagnosed with AIDS by year of report (see also the section entitled "Trends" on page 52 and 53).
- The rate of reported AIDS cases in Missouri has been noticeably less than the overall rate nationwide. In 2001 (the most recent year for which national data are available), the AIDS rate per 100,000 population in Missouri was 7.9, compared to the U.S. rate of 14.7.
- Of the 14,135 reported HIV Disease cases, 4,657 (32.9%) have not met the case definition for AIDS, and are thus categorized as HIV cases (see Figure 3); 316 new HIV cases\* were reported in 2002, a significant decrease of 106 cases (25%) from the previous year.
- It is estimated that there are currently 9,500 to 13,500 HIV-infected persons (i.e., persons with HIV Disease) living in Missouri.

<sup>\*</sup>Throughout this document, whenever reference is made to HIV cases reported in 2002, this means HIV cases reported during that year which remained HIV cases at the end of the year. Those HIV cases reported in 2002 which later in the year became AIDS cases are not included (instead, they are included among the AIDS cases reported in 2002).

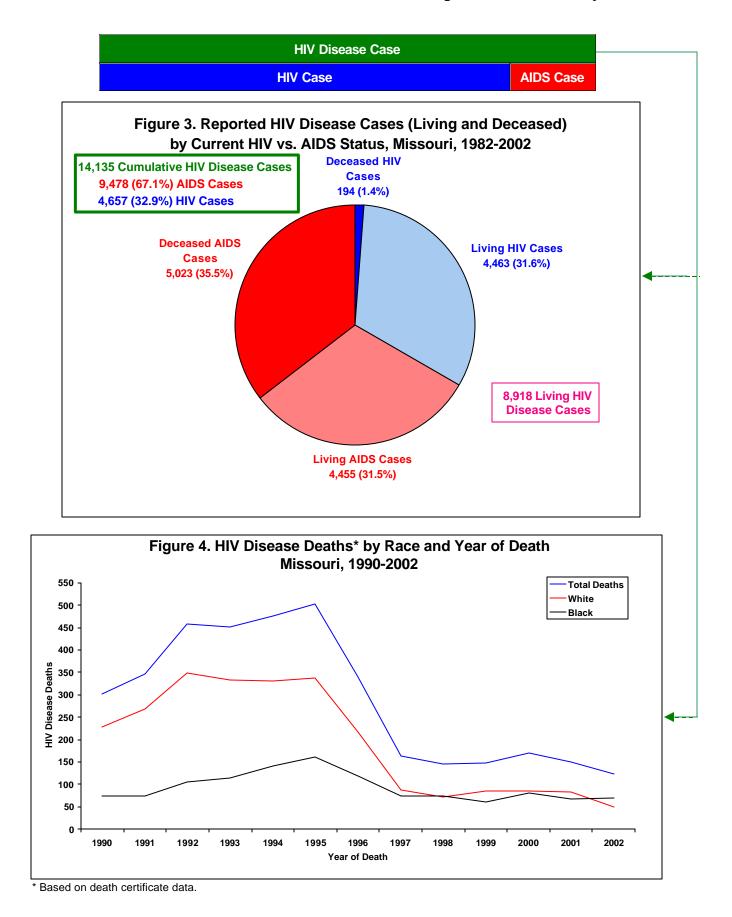


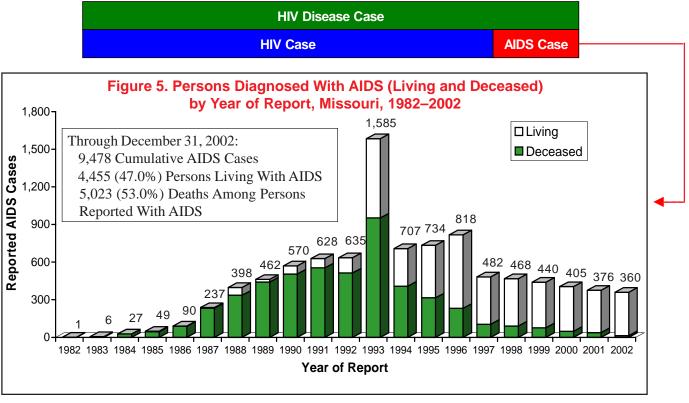
<sup>\*</sup> HIV Case vs. AIDS Case

<sup>\*\*</sup>Cases are indicated by year of their initial report to the Missouri Department of Health and Senior Services(i.e., by the year in which the first report of the person, whether as an HIV case or an AIDS case, was received by the department.)

<sup>\*</sup>These cases were either: 1) initially reported as HIV cases and then later reclassified as AIDS cases because they had subsequently come to meet the AIDS case definition: or 2) initially reported as an AIDS case

<sup>&</sup>quot;"These cases were initially reported as HIV cases, and have subsequently remained HIV cases (i.e., they have not met the case definition for AIDS).



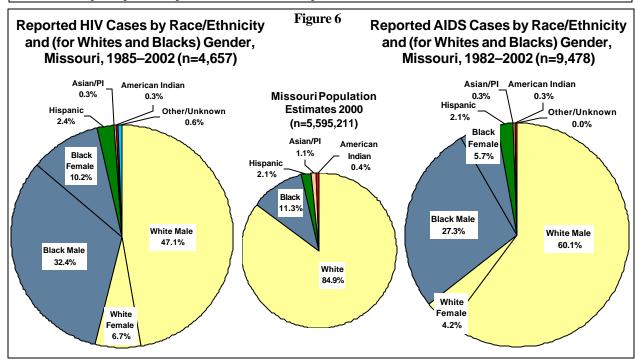


## Who (1)

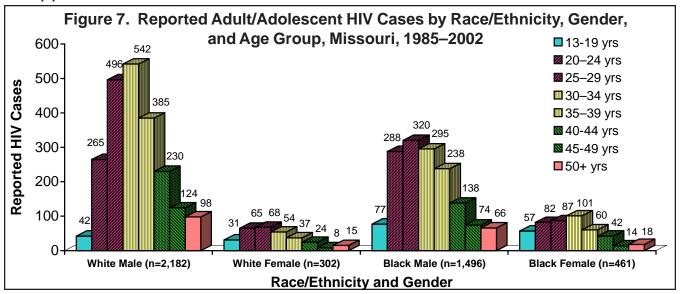
- Table 1 describes HIV and AIDS cases by gender, race/ethnicity, and age at diagnosis.
- Males comprised 79.1% of the 316 HIV cases and 82.8% of the 360 AIDS cases reported in 2002, proportionately higher than the 77.1% of HIV cases and 81.4% of AIDS cases reported in 2001.
- Blacks are disproportionately represented among reported HIV and AIDS cases. Although blacks make up only about 11% of Missouri's population, they accounted for 43.0% of HIV cases and 44.4% of AIDS cases reported in 2002. (See Figure 6, which shows total reported HIV and AIDS cases by race/ethnicity and gender.) The rate for HIV cases reported in 2002 in blacks (21.6) was 6.5 times the rate in whites (3.3). (See Table 9 on page 51.) Also, 57% of AIDS-related deaths in 2002 were in blacks, a significant rise in mortality from 45% in 2001.
- The over-representation of blacks is especially seen in reported HIV and AIDS cases in females. Of the 66 female HIV cases reported in 2002, 40 (60.6%) were in black females. However, this is a decrease of 23 from the previous year; 65.6% in 2001 to 60.6% in 2002. Of the 62 female AIDS cases reported in 2002, 41 (66.1%) were in black females, down from 49 (71.0%) reported in 2001. These decreases may be significant.
- For Hispanics, the rates for HIV and AIDS cases reported in 2002 were about 3.6 times those seen in whites. The increase is significant for both HIV cases and AIDS cases. Although the numbers of reported Hispanic cases (14 HIV cases and 14 AIDS cases in 2002) have been small, the rise (compared to 2001) has been 40% for HIV cases and 75% for AIDS cases.
- Asians and American Indians each comprise less than 0.5% of total reported HIV and AIDS cases. In 2002, 2 HIV
  cases were reported in Asians; and 2 HIV cases were reported in American Indians. No AIDS cases were reported in
  Asians and American Indians in 2002.
- Of the 316 HIV cases reported in 2002, 40.2% were diagnosed in 30-39 year olds, 31.3% in 20-29 year olds, 18.7% in 40-49 year olds, 5.1% in persons 50 years of age and older, and 4.4% in 13-19 year olds. These data indicate that many infections are occurring in persons in their twenties, and that infections are certainly occurring in teenagers. (It should be noted that initial infection with HIV can occur several years before the person is tested and diagnosed.)
- Among reported HIV cases in white males, the largest number were diagnosed in men 30-34 years of age; for reported
  cases in black males, the largest number were diagnosed in men 25-29 years of age. Among HIV cases reported in
  white females, the largest number were diagnosed in women 25-29 years of age; for reported cases in black females,
  the largest number were diagnosed in women 30-34 years of age. Figure 7 shows total reported adult/adolescent HIV
  cases in white males and females, and black males and females, by age group.

# HIV Disease Case HIV Case AIDS Case

Table 1. Reported HIV and AIDS Cases by Gender, Race/Ethnicity, and Age at Diagnosis, Missouri. 1982-2002 **HIV Cases AIDS Cases HIV Disease** Reported 2002\* Cumulative Reported 2002 Cumulative Cumulative Cases Cases Cases % % Cases % % Cases % Gender (79.1%) .... 3,848 (82.6%) ...... 298 (82.8%) ..... 8,520 (89.9%) ...... 12,368 .....809 (17.4%) .......... 62 (17.1%) ....... 958 (10.1%) ........... 1,767 (20.9%) (12.5%)Race/Ethnicity (49.4%).... 2,504 (53.8%) ...... 185 (51.4%) ..... 6,098 (60.9%)..... 1,981 (42.5%) ...... 160 (44.4%) ..... 3,125 (33.0%) ........... 5,106 (36.1%)(4.4%)(2.4%) ...... 14 (3.9%) ....... 197 (2.1%) ...... 311 (2.2%).....114 Asian/Pacific Islander ......2 (0.6%)(0.3%) ...........1 (0.3%) ......26 (0.3%)..... 16 American Indian ...... 2 (0.6%)..... 15 (0.3%) ......0 (0.0%) ......32 (0.3%) ......47 (0.3%)(1.9%)..... 27 (0.6%) ......0 (0.0%) ..... 0 (0.0%) ......27 Unknown ...... 6 (0.2%)Race/Ethnicity and Gender .... 2,193 (47.1%) ...... 168 (55.8%)White Male ...... 131 (41.5%)(46.7%) .... 5,701 (30.4%)..... 1,507 (32.4%) ...... 119 (33.1%) ..... 2,587 (27.3%) .......4,094 (29.0%)(2.2%) ...... 11 (1.9%) ........... 282 (4.1%)(3.1%) ...... 181 ..... 101 (2.0%)Asian/Pacific Islander Male ...... 2 (0.3%) ......0 (0.2%) ......34 (0.6%)..... 12 (0.0%) ......22 (0.2%)(0.3%) ......43 (0.3%) .....0 (0.0%) ......29 (0.3%) American Indian Male ......2 (0.6%)..... 14 (0.4%) ......0 Unknown Male ......6 (1.9%)..... 21 (0.0%) ....... (0.0%) ......21 (0.1%).....311 (4.2%) ...... 708 (5.0%) (7.9%)(4.7%) ...... 397 (6.7%) ......... 17 (12.7%).....474 (5.7%) ........... 1,012 (7.2%) (0.2%) (10.2%) ....... 41 (11.4%) ...... 538 (0.3%) ......3 (0.3%) (0.2%) ......29 ..... 13 (0.8%) .......... 16 (0.1%) ......1 (0.3%) ...... 4 (0.0%) ...... 8 (0.0%)(0.1%).....4 (0.0%) ...... 4 American Indian Female ......0 (0.0%)(0.0%) .....0 (0.0%) ........... 3 (0.0%)..... 1 (0.1%) ......0 Unknown Female ...... 0 (0.0%).....6 (0.0%) ...... 0 (0.0%) ...... 6 (0.0%)Age at Diagnosis‡ (0.3%)..... 45 (0.3%) ......58 .....214 (1.4%) ...... 101 (13.9%) .... 2,080 (4.6%) ..... (1.1%)(4.4%).... 1,734 (37.2%) ...... (31.3%)(21.9%)(38.2%) ...... 151 (41.9%) ..... 4,308 (40.2%) ..... 1,777 (45.5%) 40-49 ...... 59 .....684 (18.7%)(14.7%) ...... 108 (30.0%) ..... 2,083 (22.0%).....203 (5.1%)(4.4%) ....... 45 (12.5%) ...... 848 (8.9%)Missouri Total ......316 (100.0%) ....4,657 (100.0%) ......360 (100.0%) ..... 9,478 (100.0%) ...... 14,135 (100.0%) \* HIV Cases reported during 2002 which remained HIV cases at the end of that year. <sup>‡</sup> For HIV Cases, Age at Diagnosis is the age at which the individual was first diagnosed with HIV infection. For AIDS Cases, Age at Diagnosis is the age at which the individual was first diagnosed with AIDS.



Who (1)



- Of the 315 adult/adolescent HIV cases reported in 2002: 120 (38.1%) were in men who have sex with men (MSM); 10 (3.2%) in men who have sex with men and inject drugs (MSM/IDUs); 10 (3.2%) in injecting drug users (IDUs); 35 (11.1%) in heterosexual contacts; and 140 (44.4%) are still being investigated and have not yet been placed in a specific exposure category.
- Of the 359 adult/adolescent AIDS cases reported in 2002: 169 (47.1%) were in MSM; 13 (3.6%) in MSM/IDUs; 28 (7.8%) in IDUs; 47 (13.1%) in heterosexual contacts; 5 (1.4%) in hemophiliac patients; 2 (0.6%) in transfusion/transplant recipients; and 94 (26.2%) are still being investigated and have not yet been placed in a specific exposure category.
- Table 2 shows HIV and AIDS cases by adjusted exposure category. In this table, those cases currently classified as "Other/Unknown Adult," many of which are still under investigation, have been assigned to a specific exposure category (i.e., MSM, MSM/IDU, IDU, heterosexual contact) in order to more clearly depict trends in reported HIV/AIDS cases. The proportion of these cases assigned to a given exposure category is based on past experience with Other/ Unknown Adult cases whose exposure risk has been determined following investigation.

Table 2. HIV and AIDS Cases by Adjusted Exposure Category\*, Missouri Reported 2002 and Cumulative Through December 2002

		HIV Ca	ises			AIDS	Cases	
R	Report	ed 2002**	Cum	ulative	Repor	ted 2002	Cum	ulative
Exposure Category C	Case	%	Case	%	Case	%	Case	%
Adult/Adolescent								
Men Who Have Sex With Men	193	(61.3%)	2,931	(63.6%)	220	(61.8%)	6,672	(70.9%)
Men Who Have Sex With Men								
& Inject Drugs	14	(4.4%)	287	(6.2%)	18	(5.1%)	830	(8.8%)
Injecting Drug Use	17	(5.4%)	418	(9.1%)	37	(10.4%)	739	(7.9%)
Heterosexual Contact	91	(28.9%)	931	(20.2%)	76	(21.3%)	912	(9.7%)
Hemophilia/Coagulation Disorder	0	(0.0%)	30	(0.7%)	3	(0.8%)	148	(1.6%)
Blood Transfusion or Tissue Recipient	0	(0.0%)	15	(0.3%)	2	(0.6%)	105	(1.1%)
Risk Not Specified								
Adult/Adolescent Subtotal	315	(100.0%)	4,612	(100.0%)	356	(100.0%)	9,406	(100.0%)
Pediatric Subtotal	1	••••	45		4	•••••	72	
Total	316	••••	4,657		360	•••••	9,478	

<sup>\*</sup> Cases currently classified as "Other/Unknown Adult," many of which are still under investigation, have been assigned to a specific exposure category in order to more clearly depict trends in reported HIV/AIDS cases. The proportion of Other/Unknown Adult cases assigned to a given exposure category is based on past experience with Other/Unknown Adult cases whose exposure risk has been determined following investigation. Such experience indicates that almost all Other/Unknown Adult cases whose exposure risk is eventually determined will be placed in one of four exposure categories: men who have sex with men, men who have sex with men and inject drugs, injecting drug use, or heterosexual contact.

Since reporting of AIDS began in 1982 and HIV in 1987, a total of 38 perinatal HIV cases and 48 perinatal AIDS cases have been reported; in 2002, no perinatal HIV cases and 2 perinatal AIDS cases were reported. (Perinatal cases are the result of HIV transmission from an infected mother to her infant before or at the time of birth, or through breast feeding.)

## Who (2)

#### HIV-Exposed Infants (Infants born to HIV-infected mothers)

- The Missouri Department of Health and Senior Services has knowledge of 364 infants born between 1993-2002 to mothers who were infected with HIV and who were Missouri residents at the time of the birth. Of these 364 infants (termed HIV-exposed infants), 39 (10.7%) were found to be infected with HIV as a result of perinatal (mother-to-infant) transmission: 325 (89.3%) were not infected.
- The proportion of HIV-exposed infants who became infected was noticeably less for those born during the period from 1995-2002 compared to those born during the earlier period from 1993-1994 (6.9% vs. 25.0%). See Table 3. This difference likely reflects the use, starting in mid- to late-1994, of zidovudine (AZT, ZDV) treatment to reduce the risk of perinatal HIV transmission.

Tab	e 3. K	now	n Hľ	V-Exp	ose	d Infa	nts*	by Inf	ecti	on Stat	us	and Ye	ar e	of Birth	1, M	lissour	i, 19	93-200	)2			
		Year of Birth																				
Infant's Infection Status	199	1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 Total														otal						
HIV-Infected Infants Non-HIV-Infected Infants	12 26 34 73	<b>0.</b> . , 0		23.3% 76.7%	2 36	0.070	-		-	11.6% 88.4%	-	8.9% 91.1%	-		_			10.3% 89.7%		,		10.7% 89.3%
Total HIV-Exposed Infants*	46 100	0.0%	30 1	00.0%	38	100.0%	43	100.0%	43	100.0%	45	100.0%	46	100.0%	31	100.0%	29	100.0%	13	100.0%	364	100.0%
	Total HIV-Exposed Infants* 46 100.0% 30 100.0% 38 100.0% 43 100.0% 43 100.0% 45 100.0% 46 100.0% 31 100.0% 29 100.0% 13 100.0% 364 100.0%  *Infants whose mothers were infected with HIV before or during pregnancy, and who were residing in Missouri at the time of birth.  NOTE: Column percentages are shown.																					

- From 1995-2002 (the period in which specific guidelines for the use of AZT to reduce perinatal HIV transmission risk have been in place), 288 HIV-exposed infants are known to have been born to mothers who were Missouri residents at the time of birth. The mothers of 200 (69.4%) of these infants received AZT at some time during the pregnancy; 11 (5.5%) of these 200 infants were infected. By contrast, during the same period the mothers of 56 HIV-exposed infants apparently did not receive AZT during the pregnancy, and 8 (14.3%) of these 56 infants were infected.
- · Blacks have been disproportionately represented among HIV-exposed infants. Of the 288 HIV-exposed infants born between 1995-2002:
  - 68 (23.6%) were white

- 8 (2.8%) were Hispanic
- 206 (71.5%) were black 6 (2.1%) were of other/unknown race/ethnicity
- White infants, who made up 23.6% of HIV-exposed infants born between 1995-2002, comprised a slightly larger proportion (30.0%) of those infants who were infected. Of the 20 HIV-exposed infants born during this period who were subsequently found to be infected with HIV:
  - 6 (30.0%) were white

- 14 (70.0%) were black
- The largest number of HIV-exposed infants has been from St. Louis City, followed by Outstate Missouri. Of the 288 HIV-exposed infants born between 1995-2002:
  - 102 (35.4%) were from St. Louis City
- 44 (15.3%) were from Kansas City
- 48 (16.7%) were from St. Louis County
- 94 (32.6%) were from Outstate Missouri
- Of those HIV-exposed infants subsequently found to be infected, the largest number were from Outstate Missouri, and St. Louis City. Of the 20 infected infants born between 1995-2002:
  - 8 (40.0%) were from St. Louis City
- 2 (10.0%) were from Kansas City
- 2 (10.0%) were from St. Louis County
- 8 (40.0%) were from Outstate Missouri
- Table 4 shows the time of HIV diagnosis in the mothers of the 288 HIV-exposed infants born between 1995-2002, and the infant's infection status. Only 5.2% (13 out of 251) of infants whose mothers were diagnosed as HIV-infected before or during pregnancy became infected, compared to 23.3% of infants whose mothers were not diagnosed until after the postpartum period.

Table 4. Known HIV-Exposed Infants\* by Infection Status and Time of HIV Diagnosis in the Mother, Missouri, 1995-2002 Time of HIV Diagnosis in the Mother

					At Delivery	or in The	After	The		
Infant's Infection Status	Before Pr	regnancy	During Pr	egnancy	Postpartun	n Period	Postpartu	m Period	Tc	otals
HIV-Infected Infants	9	5.8%	4	4.2%	0	0.0%	7	23.3%	20	6.9%
Non-HIV-Infected Infants	146	94.2%	92	95.8%	7	100.0%	23	76.7%	268	93.1%
Total HIV-Exposed Infants*	155	100.0%	96	100.0%	7	100.0%	30	100.0%	288	100.0%

\*Infants whose mothers were infected with HIV before or during pregnancy, and who were residing in Missouri at the time of birth. NOTE: Column percentages are shown.

#### Who (3)

- Civilian Applicants for Military Service
  - From 1985 through 2001, 154,094 civilian applicants for military service\* from Missouri have been tested for HIV infection; 93 (0.06%) tested positive. (2001 is the latest year for which data are available.)
  - The HIV seropositivity rate was higher in males than in females (0.06% vs 0.04%), and in blacks compared to whites (0.20% vs 0.04%). When the data are examined by race/ethnicity and gender, the highest seropositivity rate was in black males (0.24%), followed by black females (0.09%), white males (0.04%), and white females (0.03%).
  - The overall seropositivity rate for Missouri civilian applicants for military service has, in general, been decreasing since 1987. The seropositivity rate in blacks has fluctuated during this period, but has decreased during each of the past 4 years. No blacks tested positive in 1999. The white seropositivity rate has been very low in recent years without noticeable upward or downward trends.
  - Table 5 shows the number of military applicants tested, and the number and percent HIV-seropositive, for whites, blacks, and persons of other/unknown race for the period from 1986 to 1999 (the latest year for which state specific data are available).

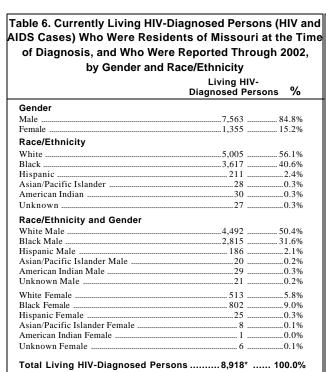
<sup>\*</sup>All persons applying for active duty or reserve military service, the service academies, and the Reserve Officer Training Corps (ROTC).

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	Total
Whites															
Tested	13,069	11,098	10,351	10,674	8,282	7,659	6,890	6,673	5,745	5,955	6,290	6,338	5,998	5,970	110,99
Positive	9	12	5	6	1	3	0	2	1	1	1	0	0	1	4:
% Positive	0.07%	0.11%	0.05%	0.06%	0.01%	0.04%	0.00%	0.03%	0.02%	0.02%	0.02%	0.00%	0.00%	0.02%	0.04%
Blacks															
Tested	2,341	2,194	2,294	2,344	1,648	1,136	1,036	1,017	1,023	1,095	1,090	1,031	902	1,089	20,24
Positive	6	9	. 8	2	4	4	0	2	1	1	3	2	1	0	4:
% Positive	0.26%	0.41%	0.35%	0.09%	0.24%	0.35%	0.00%	0.20%	0.10%	0.09%	0.28%	0.19%	0.11%	0.00%	0.21%
Other or Unknow	vn														
Tested	246	216	192	250	187	207	220	167	197	211	205	231	265	338	3,13
Positive	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Positive	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total															
Tested	15,656	13,508	12,837	13,268	10,117	9,002	8,146	7,857	6,965	7,261	7,585	7,600	7,165	7,397	134,36
Positive	15	21	13	. 8	5	7	0	4	2	2	4	2	1	. 1	8
% Positive	0.10%	0.16%	0.10%	0.06%	0.05%	0.08%	0.00%	0.05%	0.03%	0.03%	0.05%	0.03%	0.01%	0.01%	0.06%

Note: Data on testing broken down by race (whites, blacks, and others) are not available for the years 2000 and 2001. Cumulative data until 2001 are mentioned in above text.

#### **Who (Living HIV Disease Cases)**

- At the end of 2002, of the 14,135 HIV Disease cases that had been reported to the Missouri Department of Health and Senior Services since 1982, 5,217 (36.9%) were known to have died and 8,918 (63.1%) were currently living. Table 6 describes these 8,918 living HIV Disease cases by gender and race/ethnicity.
- Figure 8 shows the 8,421 currently living HIV Disease cases (does not include persons living in correctional facilities) by county of residence at the time of diagnosis (which may or may not be the present location of residence).



<sup>\*</sup>Includes persons living in state correctional facilities

 At the end of 2002, 3,956 (living) HIV Disease cases\* were enrolled in HIV case management in Missouri.
 Table 7 describes these individuals by gender and race/ethnicity.

#### Figure 8. Currently Living HIV-Diagnosed Persons (HIV and AIDS Cases), Reported Through 2002, by Missouri County of Residence<sup>†</sup> at Time of Diagnosis 0 2 0 2 2 6 0 4 96L8Y 1 3 9 0 8 18 262 2 282 9 139 20 17 34 2 607 37 12 2 18 6 15 5 22 9 302 6 97 14 18 16 Does not include persons living in correctional facilities at the time of diagnosis. § All cases within the city limits of Kansas City are included in the totals for Kansas City. Cases indicated in Jackson, Clay and Platte counties are

# Table 7. Living HIV-Diagnosed Persons (HIV and AIDS cases) Enrolled in HIV Case Management as of December 31, 2002, by Gender and Race/Ethnicity

outside the city limits of Kansas City.

Living HIV-Diagnosed Persons in HIV Case Management Gender Male 3 320 83 9% Female 636 16.1% Race/Ethnicity White 2.241 56.6% Black .. .1.554 39.3% .. 115 2.9% Hispanic . Asian/Pacific Islander . ...10 0.3% American Indian . 21 .0.5% Unknown ..15 .0.4% Race/Ethnicity and Gender White Male 1.994 50.4% 1,190 Black Male 30.1% Hispanic Male ..98 Asian/Pacific Islander Male 0.2% .0.5% American Indian Male .. 2.1 Unknown Male 10 0.3% White Female 247 6.2% Black Female 364 9 2% .0.4% Hispanic Female. .. 17 Asian/Pacific Islander Female .0.1% American Indian Female ... .0.0% Unknown Female .. .0.1% Total Living HIV-Diagnosed Persons .......3,956 ....... 100.0% **Enrolled in HIV Case Management** 

<sup>\*</sup> Note that some of these persons were initially diagnosed and reported with HIV/AIDS in states other than Missouri, but later moved to Missouri where they were then enrolled in case management. As a consequence, these individuals are not included among reported Missouri HIV or AIDS cases, but rather are included among reported cases in the states where they were initially diagnosed and reported.

#### Where

- Table 8 summarizes reported HIV and AIDS cases and rates by geographic area. The highest rates of HIV and AIDS cases are in St. Louis City, followed by Kansas City, St. Louis County, and Outstate Missouri.
- •Of the 316 HIV cases reported in Missouri residents in 2002:
  - 68 (21.5%) were from St. Louis City; the rate was 19.5 cases per 100,000 population
  - 54 (17.1%) were from St. Louis County; the rate was 5.3
  - 76 (24.1%) were from Kansas City; the rate was 17.2
  - 86 (27.2%) were from Outstate Missouri; the rate was 2.3
  - 32 (10.1%) were in persons in Missouri Correctional Facilities at the time of diagnosis
- •Of the 360 AIDS cases reported in Missouri residents in 2002:
  - •114 (31.7%) were from St. Louis City; the rate was 32.7 cases per 100,000 population
  - 49 (13.6%) were from St. Louis County; the rate was 6.4
  - 80 (22.2%) were from Kansas City; the rate was 18.1
  - •105 (29.2%) were from Outstate Missouri; the rate was 2.8
  - 12 ( 3.3%) were in persons in Missouri Correctional Facilities at the time of diagnosis
- There has been a significant decline of both HIV and AIDS cases in St. Louis City compared to 2001. Only 68 cases
  of HIV were reported in 2002 compared to 135 in 2001; a decline of 67 cases (50%). Reported AIDS cases declined
  from 140 in 2001 to 114 in 2002, an 18.6% decline.
- Table 9 provides information on 2002 HIV cases and rates by race/ethnicity and geographic area. The largest number
  of cases were reported from the Outstate area, but had the lowest case rate. The second largest number of cases
  were reported from Kansas City. In each of these geographic areas, the rate in blacks was noticeably higher than in
  whites.
- Figure 9 shows cumulative reported HIV cases by county; at least 1 HIV case has been reported from 97 (85.1%) of Missouri's 114 counties. Figure 10 shows cumulative reported AIDS cases by county; at least 1 AIDS case has been reported in 105 (92.1%) of the state's 114 counties. Only 5 (4.4%) Missouri counties have no reported HIV or AIDS cases.
- Table 10 provides information on HIV cases and rates by race/ethnicity and HIV Region. The largest number of cases and the highest case rate were reported from the St. Louis Region, followed by the Kansas City Region. (See the section on each HIV region for a detailed description of HIV disease in that region).

# Table 8. HIV and AIDS Cases and Rates by Geographic Area, Missouri, Reported 2002 and Cumulative Through December 2002

			HIV Case	es		AIDS Cases						
	Reported 2002*			Cumulative		Reported 2002			Cum	ulative		
HIV Region	Cases	%	Rate**	Cases	%	Cases	%	Rate**	Cases	%		
Location												
St. Louis City <sup>†</sup>	68	21.5%	19.5	1,340	28.8%	114	31.7%	32.7	2,693	28.4%		
St. Louis County <sup>†</sup>	54	17.1%	5.3	629	13.5%	49	13.6%	4.8	1,466	15.5%		
Kansas City <sup>†</sup>	76	24.1%	17.2	1,155	24.8%	80	22.2%	18.1	2,615	<b>27.6</b> %		
Outstate <sup>†</sup>	86	27.2%	2.3	1,190	25.6%	105	29.2%	2.8	2,475	26.1%		
Missouri Correctional Facilities <sup>††</sup>	32	10.1%		343	7.4%	12	3.3%		230	2.4%		
HIV Region												
St. Louis HIV Region <sup>†</sup>	132	41.8%	6.6	2,108	45.3%	181	50.3%	9.0	4,508	47.6%		
Kansas City HIV Region <sup>†</sup>	90	28.5%	5.1	1,388	29.8%	101	28.1%	8.7	3,183	33.6%		
Northwest HIV Region <sup>†</sup>	0	0.0%	0.0	52	1.1%	4	1.1%	1.7	155	1.6%		
North Central HIV Region <sup>†</sup>	21	6.6%	3.0	208	4.5%	20	5.6%	2.8	406	4.3%		
Southwest HIV Region <sup>†</sup>	32	10.1%	3.2	415	8.9%	28	7.8%	2.8	729	7.7%		
Southeast HIV Region <sup>†</sup>	9	2.8%	1.9	143	3.1%	14	3.9%	2.9	267	2.8%		
Missouri Correctional Facilities <sup>††</sup>	32	10.1%		343	7.4%	12	3.3%		230	2.4%		
MISSOURI	316	100.0%	5.6	4,657	100.0%	360	100.0%	6.4	9,478	100.0%		

<sup>\*</sup>HIV cases reported during 2002 which remained HIV cases at the end of that year.

<sup>\*\*</sup>Per 100,000 population.

<sup>&</sup>lt;sup>†</sup>Does not include persons living in correctional facilities at the time of diagnosis.

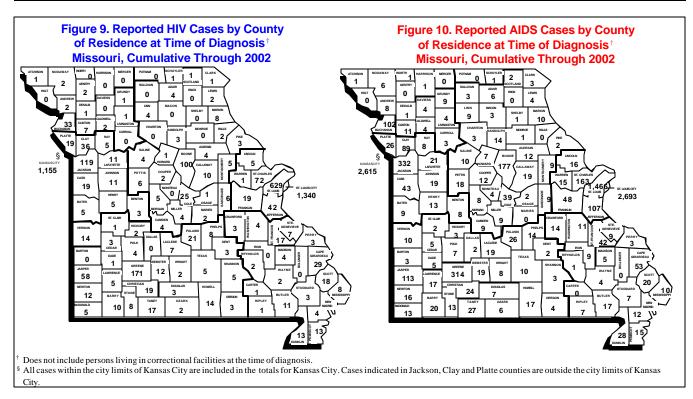
<sup>&</sup>lt;sup>††</sup>Includes state, county, and local correctional facilities

Table 9. Reported HIV Cases and Rates by Race/Ethnicity and Area, Missouri, 2002

l able 9.	Reporte	a HIV C	ases al	10 Rates	Rates by Race/Ethnicity and Area, Missouri, 2002								
	White	White, Non-Hispanic			Black, Non-Hispanic			lispanic		Total			
Area	Cases	%	Rate*	Cases	%	Rate*	Cases	%	Rate*	Cases	%	Rate*	
St. Louis City <sup>†</sup>	23	33.8%	15.1	37	54.4%	20.8	3	4.4%	42.7	68	100.0%	19.5	
St. Louis County <sup>†</sup>	27	50.0%	3.5	24	44.4%	12.4	2	3.7%	13.7	54	100.0%	5.3	
Kansas City <sup>†</sup>	32	<b>42.1</b> %	11.9	36	47.4%	26.1	6	7.9%	19.6	76	100.0%	17.2	
Outstate Missouri <sup>†</sup>	61	70.9%	1.7	20	23.3%	16.7	3	3.5%	4.5	86	100.0%	2.7	
MO Correctional Facilities <sup>††</sup>	13	40.6%		19	59.4%		0	0.0%		32	100.0%		
MISSOURI*	156	49.4%	3.3	136	43.0%	21.6	14	4.4%	11.8	316	100.0%	5.6	

<sup>\*</sup>Per 100,000 population.

Note: Row percentages are shown.



	White,	Non-His	panic	Black,	Black, Non-Hispanic			lispanic		Total		
Area	Cases	%	Rate*	Cases	%	Rate*	Cases	%	Rate*	Cases	%	Rate*
St. Louis HIV Region <sup>†</sup>	60	45.5%	5.9	61	46.2%	35.4	5	3.8%	10.9	132	100.0%	6.6
Kansas City HIV Region <sup>†</sup>	42	46.7%	5.9	40	44.4%	27.7	6	6.7%	10.4	90	100.0%	5.1
Northwest HIV Region <sup>†</sup>	0	0.0%	0.0	0	0.0%	0.0	0	0.0%	0.0	0	100.0%	0.0
North Central HIV Region <sup>†</sup>	13	61.9%	1.9	8	38.1%	22.8	0	0.0%	15.6	21	100.0%	3.0
Southwest HIV Region <sup>†</sup>	24	75.0%	2.4	4	12.5%	7.3	3	9.4%	16.7	32	100.0%	3.2
Southeast HIV Region <sup>†</sup>	4	44.4%	1.1	4	44.4%	10.1	0	0.0%	0.0	9	100.0%	1.9
MO Correctional Facilities <sup>††</sup>	13	40.6%		19	59.4%	_	0	0.0%		32	100.0%	
MISSOURI*	156	49.4%	3.3	136	43.0%	21.6	14	4.4%	11.8	316	100.0%	5.6

<sup>\*</sup>Per 100,000 population.

Row total includes American Indians, Asians and other cases not shown in the table/s. As such, the total of white, black and Hispanic cases shown in the table/s may not add up to the total cases.

<sup>&</sup>lt;sup>†</sup>Does not include persons living in correctional facilities at the time of diagnosis.

<sup>&</sup>lt;sup>11</sup>Includes state, county, and local correctional facilities.

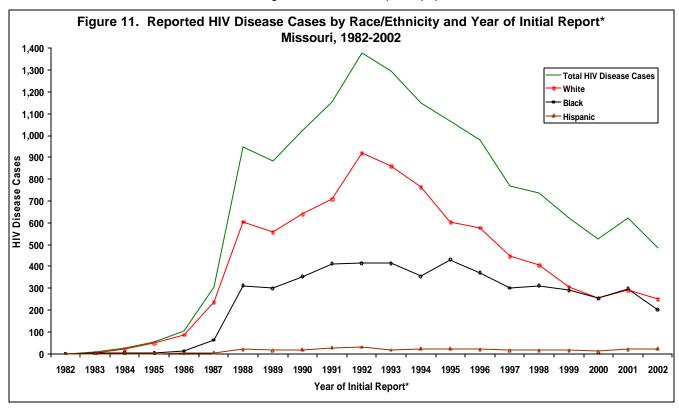
<sup>&</sup>lt;sup>†</sup>Does not include persons living in correctional facilities at the time of diagnosis.

 $<sup>^{\</sup>dagger\dagger}\mbox{Includes}$  state, county, and local correctional facilities.

Note: Row percentages are shown.

#### **Trends**

- The 487 HIV Disease cases initially reported in Missouri residents in 2002 represented a significant decrease of 21.7% from the 622 cases reported in 2001 (see Figure 2 on page 42). Prior to 2001, the annual number of reported HIV Disease cases had decreased each year from 1992 through 2000.
- Figure 11 shows reported HIV disease cases in whites, blacks, and Hispanics by year of initial report. For whites, a peak of 920 reported HIV Disease cases was seen in 1992; subsequently the annual number of reported cases decreased each year through 2000. The 252 white cases reported in 2002 represented a 13.4% decrease from the 291 cases reported in 2001. For blacks, a peak of 432 reported HIV Disease cases was seen in 1995; then from 1995 through 2000, the annual number of reported cases generally decreased, but at a slower rate compared with white cases. The 201 black cases reported in 2002 represented an 32.5% decrease from the 298 cases reported in 2001. This is a significant decrease in the trend; the lowest number since 1987.
- Overall, HIV Disease cases in Missouri among whites and blacks have declined considerably since the increase in 2001, and the downward trend is consistent with the steady decline since 1992 except for the year 2001. However, the overall rates and numbers have not changed much in the Hispanic population in Missouri.

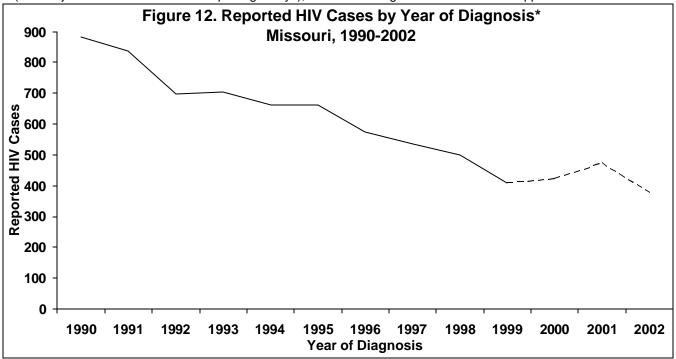


- The 360 AIDS cases reported in Missouri residents in 2002 represented an 4.3% decrease from the 376 cases reported in 2001 (see Figure 5 on page 44).
- From 2001 to 2002, the number of reported AIDS cases in whites increased by 12.8% (from 164 cases reported in 2001 to 185 cases in 2002), while the number of reported cases in blacks decreased significantly by 19.6% (from 199 cases reported in 2001 to 160 cases in 2002).
- The 123 HIV-related deaths in Missouri residents reported on death certificates during 2002 represent an 18.0% decrease from the 150 deaths reported in 2001. The 150 deaths in 2001 represented a 11.2% decrease from the 169 deaths reported in 2000. (See Figure 4 on page 43).
- From 2001 to 2002, the number of HIV Disease deaths in whites decreased significantly by 39.0% (from 82 deaths reported in 2001 to 50 reported in 2002), while the number of HIV Disease deaths in blacks increased slightly by 2.9% (from 68 deaths reported in 2001 to 70 deaths in 2002).
- The 4,455 persons living with AIDS at the end of 2002 represent a 4.5% increase over the 4,262 individuals living with AIDS at the end of 2001.

- The following describe additional trends in reported AIDS cases. Such trends may provide indications as to which groups are increasingly becoming affected by the epidemic:
  - Since the mid-1980's, women have generally been making up a larger proportion of annually reported AIDS cases. Of AIDS cases reported in 2002, 17.1% were in females. By comparison, of AIDS cases reported six years previously (in 1996), only 12.1% were in females.
  - Blacks have likewise, since the mid-1980's, generally been making up a larger proportion of annually reported AIDS cases, and during each of the three years between 1999 and 2001, have made up approximately half of all reported cases. In 2002, blacks made up 44.4% of reported AIDS cases, a decline by 8.8% from reported cases in 2001. Six years previously (in 1996), blacks made up 38.7% of reported cases.
  - Heterosexual contacts have, since the mid-1980's, generally been making up a larger proportion of annually reported AIDS cases. For AIDS cases reported in 2002, it is estimated that eventually approximately 21% will be placed in the heterosexual contact exposure category (see Table 2 on page 46).
- Comparing reported HIV cases (which generally represent persons more recently infected with HIV) with reported AIDS cases (which generally represent persons less recently infected) is another potential means of discerning which groups are increasingly becoming affected by the epidemic.\*
  - As indicated in Table 1 (on page 45), a higher proportion of cumulative HIV cases, compared to cumulative AIDS
    cases, tend to be female and black, providing evidence that among more recently infected persons an increasing
    proportion are female and black.
  - In Table 2, cases currently placed in the "Other/Unknown" exposure category have been reassigned to a specific exposure category (such as MSM or heterosexual contact) based on past experience in reassigning such cases following investigation. As a result, HIV and AIDS cases can be better compared with regard to involvement in the epidemic by persons in different exposure categories. The data contained in Table 2 indicate that a lower proportion of cumulative HIV cases, compared to cumulative AIDS cases, are MSM, and a higher proportion are heterosexual contacts. This provides evidence that among more recently infected persons, a decreasing proportion are being infected through male homosexual contact and an increasing proportion are being infected through heterosexual contact. (However, it seems highly likely that the largest number of new infections continue to result from male homosexual contact [note the estimate that approximately 61% of HIV cases reported in 2002 were MSM].)

<sup>\*</sup>This approach does have potential limitations. To be diagnosed as an HIV case, the individual must first have been tested for HIV. Because members of certain subpopulations may be more or less likely to be tested, different subpopulations could be over- or under-represented among reported HIV cases.

- Another way to examine the current direction of the HIV Disease epidemic is to look at trends in reported HIV cases by year of diagnosis. This approach can be useful because HIV cases are persons diagnosed with HIV infection who have not progressed to AIDS, and so are generally closer to the time of initial infection than are persons with AIDS. Examining changes in reported HIV cases over time can thus potentially provide a general estimate of current trends in new HIV infections in the population(s) being considered.\*
- Figure 12 shows reported HIV cases by year of diagnosis. The annual number of diagnosed HIV cases generally decreased during the period from 1990 to 2000. However, in 2001, there was an increase in diagnosed HIV cases (after adjustments were made for reporting delays), but the level again seems to have dropped in 2002.



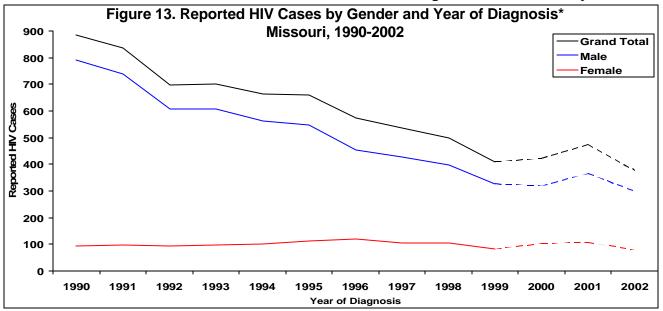
\*Numbers of cases for 2000-2002, shown by the dashed lines, are adjusted for reporting delays.

• Figure 13 shows reported HIV cases by gender and year of diagnosis. For male HIV cases, the annual number of diagnosed cases generally decreased during the period from 1990 to 2000, but in 2001, a noticeable increase (of approximately 40 cases) was noticed. It again leveled off in 2002. For females, no noticeable upward or downward trends have been apparent in recent years; there was a small increase in diagnosed cases in 2000 and 2001, but in 2002, the trend seems to have leveled off.

<sup>\*</sup> This approach does have potential limitations. For many reported HIV cases, initial diagnosis of infection did not occur until several years after initial infection, so at best the trends in reported HIV cases can only approximate actual trends in new HIV infections. In addition, to be diagnosed as an HIV case, the individual must first have been tested for HIV infection. Because members of certain subpopulations may be more, or less, likely to be tested, different subpopulations could be over- or under-represented among diagnosed and reported HIV cases. Also, if changes in testing behavior among at-risk persons, or their health care providers, have occurred over time, this could lead to an increase, or decrease, in the numbers of cases diagnosed and reported.

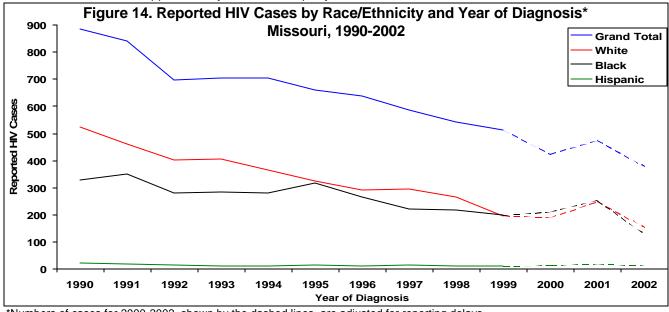
The HIV cases shown in Figures 12 through 17 represent individuals who were HIV cases (i.e., HIV infected but not AIDS) at the time of initial diagnosis of HIV infection. Some of these individuals have subsequently progressed to AIDS, while the rest currently remain HIV cases. However, in these figures, where the emphasis is on status at the time of initial diagnosis, all are considered HIV cases. (This is in contrast to the data in Tables 1 and 2. In these tables, once an individual who is an HIV case meets the case definition for AIDS, he or she is no longer counted as an HIV case, but instead is counted as an AIDS case.)

Adjustments were made for delays in reporting of cases. That is, for more recent years, not all cases diagnosed during these years have been reported as yet. To adjust for this, estimates were made, based on past experience, of the additional number of cases expected to ultimately be reported, and these expected cases were added to those already reported to give the estimated total number of cases for a given year as shown in the figure.



\*Numbers of cases for 2000-2002, shown by the dashed lines, are adjusted for reporting delays.

• Figure 14 shows reported HIV cases¹ by race/ethnicity and year of diagnosis.⁴ For whites, the annual number of diagnosed cases showed a general decrease during the period from 1990-2000, but from 2000-2001, the number of diagnosed cases increased by about 40 cases. For blacks, the annual number of diagnosed cases also generally decreased during the period from 1990-2000, although at a slower rate than in whites; from 2000-2001, a slight increase in diagnosed cases appeared to have occurred. However, in 2002, HIV case reports have decreased for both white and black cases, more significantly in blacks. In recent years, the annual number of diagnosed Hispanic cases has remained stable at approximately 10-15 cases per year.



\*Numbers of cases for 2000-2002, shown by the dashed lines, are adjusted for reporting delays.

• Figure 15 shows reported HIV cases¶ by year of diagnosis¶¶ for white males and females, and black males and females. For white and black males, the annual numbers of diagnosed cases generally decreased during the period from 1990-2000, although the overall rate of decrease was less in black men than in white men. From 2000-2001, the number of diagnosed cases increased by approximately 35 cases in white men, while staying essentially unchanged in black men. In 2002, the number dropped significantly for both white and black males. For white females and black females, no noticeable upward or downward trends were apparent in recent years; there was a small increase in diagnosed cases in 2000 and 2001 for both groups of women, but in 2002, there has been a noticeable decrease in black female cases.

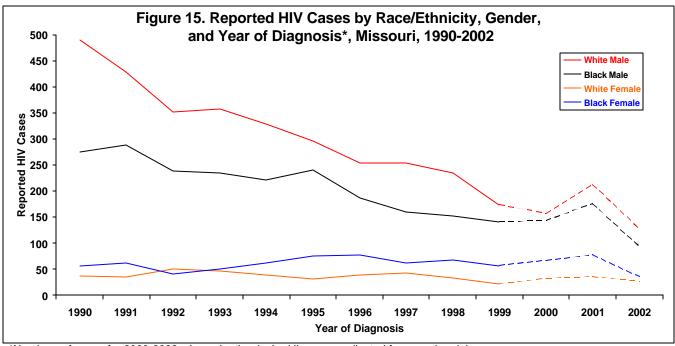
<sup>\*</sup> See footnote on page 54. 

\*\*See footnote on page 54. 

\*\*See footnote on page 54. 

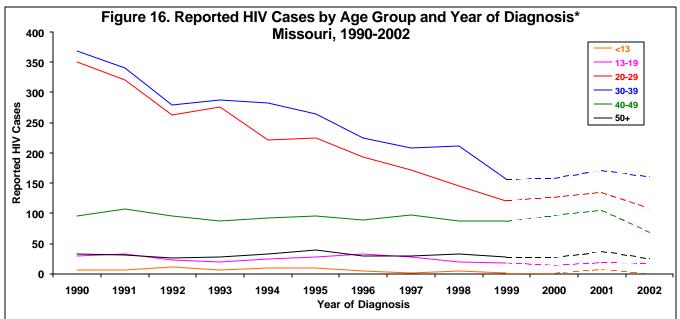
See footnote on page 54. 

\*\*See footnote



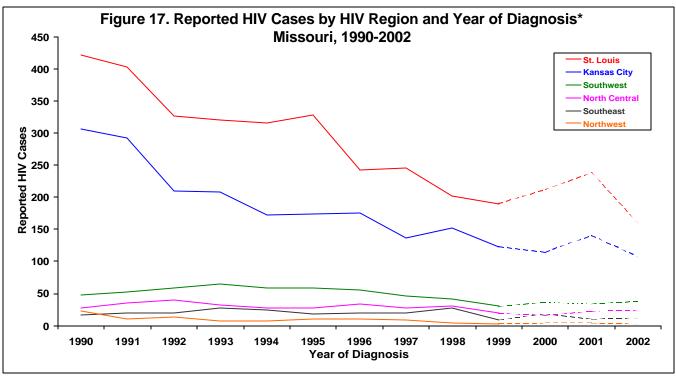
\*Numbers of cases for 2000-2002, shown by the dashed lines, are adjusted for reporting delays.

• Figure 16 shows reported HIV cases¹ by age group and year of diagnosis.⁴ This figure indicates that the overall decrease in diagnosed HIV cases during the period from 1990-2000 was generally the result of declines in the annual numbers of cases diagnosed in 20-29 year olds and 30-39 year olds; the annual numbers of cases reported from the other age groups remained generally stable. Each age group apparently experienced small increases in diagnosed cases in 2001; but in 2002, decreases were noticed in all the age groups, most noticeably in age groups 40-49 year olds and 20-29 year olds. The decline has been relatively less in 30-39 year olds. The level fell to 0 for the <13 year old age group, for the first time ever.



\*Numbers of cases for 2000-2002, shown by the dashed lines, are adjusted for reporting delays.

• Figure 17 shows reported HIV cases by HIV Region and year of diagnosis. The HIV Regions with the largest numbers of HIV cases (St. Louis and Kansas City) have both had general declines in the number of diagnosed cases during the 1990s. The number of diagnosed HIV cases in the St. Louis Region appeared to increase slightly from 1999-2000, and then increased more noticeably (by approximately 25 cases) from 2000-2001. In the Kansas City Region, the number of diagnosed HIV cases increased by about 25 cases from 2000-2001. In 2002, cases decreased noticeably in the St. Louis Region, as well as in the Kansas City Region. These decreases have essentially followed the trend of decline until 1999. The annual numbers of diagnosed HIV cases from the other regions have generally remained stable in recent years. The North Central and Southwest HIV Regions appear to have had slight increases in diagnosed HIV cases from 2000-2002.



<sup>\*</sup>Numbers of cases for 2000-2002, shown by the dashed lines, are adjusted for reporting delays.

<sup>\*</sup> See footnote on page 54. 

\* See footno

Question 3:
Question 5.
What are the Indicators of Risk for HIV/AIDS in Missouri?
What are the indicators of Kisk for the V/AIDS in Missourf.

# Men Who Have Sex With Men (MSM)

#### Magnitude of the Problem

- In Missouri, from the beginning of the HIV/AIDS epidemic through 2002, a total of 9,162 HIV Disease cases have been identified as occurring in MSM who deny injecting drug use and who were residents of Missouri at the time of diagnosis (these cases make up 65.4% of all reported adult/adolescent HIV Disease cases statewide). Of these 9,162 MSM HIV Disease cases, 6,508 (71.0%) are AIDS cases and 2,654 (29.0%) are HIV cases.
- The 6,508 AIDS cases in MSM make up 69.2% of all reported adult/adolescent AIDS cases. In 2002, of the 356 adult/ adolescent AIDS cases reported, 169 (47.5%) have, to date, been identified as being in MSM.
- The 2,654 HIV cases in MSM make up 57.5% of all reported adult/adolescent HIV cases. In 2002, of the 315 adult/ adolescent HIV cases reported, 120 (38.1%) have, to date, been identified as being in MSM.
- These numbers, however, do not indicate the full extent of MSM involvement since for 286 adult/adolescent AIDS cases, and 499 adult/adolescent HIV cases, the specific exposure category has not yet been determined. These cases are, in general, still under investigation and are currently in the "Other/Unknown" exposure category. If these cases were all assigned to a specific exposure category (i.e., MSM, MSM/IDU, IDU, or heterosexual contact) based on past experience with "Other/Unknown" cases whose exposure category was determined following investigation, the result would be that seen in Table 2 (on page 46). Here it is estimated that approximately 6,672 (70.9%) of the 9,406 total reported adult/adolescent AIDS cases, and approximately 220 (61.8%) of the 356 adult/adolescent AIDS cases reported in 2002, were in MSM. Likewise, it is estimated that approximately 2,931 (63.6%) of the 4,612 total reported adult/adolescent HIV cases, and approximately 193 (61.3%) of the 315 adult/adolescent HIV cases reported in 2002, were in MSM.

#### Who

- Table 11 shows reported HIV and AIDS cases in MSM by race/ethnicity.
- White men comprise 69.4% of the 6,508 total reported AIDS cases among MSM, black men make up 28.2%, and Hispanic men account for 1.9%. (However, for MSM AIDS cases reported in 2002, white men made up 60.4%, black men 37.3%, and Hispanic men 2.4%.) Twenty MSM AIDS cases have been reported in American Indians, and 12 cases in Asians.
- Of the 2,654 total reported HIV cases among MSM, white men comprise 61.1%, whereas black men make up 35.2%;
   Hispanic men account for 2.6%. Seven MSM HIV cases have been reported in American Indians, and 8 cases in Asians.

Table 11. Reported HIV and AIDS Cases in Men Who	
Missouri, Reported 2002*, and Cumulative	e Through December 2002
HIV Cases	AIDS Cases

_		HIV	Cases						
	Repo	rted 2002 <sup>5</sup>	* Cum	ulative	Repo	rted 2002	Cum	Cumulative	
Race/Ethnicity	Case	%	Case	%	Case	%	Case	%	
White	65	(54.2%)	1,621	(61.1%)	102	(60.4%)	4,514	(69.4%)	
Black	43	(35.8%)	935	(35.2%)	63	(37.3%)	1,837	(28.2%)	
Hispanic	7	(5.8%)	70	(2.6%)	4	(2.4%)	125	(1.9%)	
Other/Unknown	5	(4.2%)	28	(1.1%)	0	(0.0%)	32	(0.5%)	
Total	120	(100.0%)	2,654	(100.0%)	169	(100.0%)	6,508	(100.0%)	
*HIV cases reported during 2002 which remained	d HIV cas	ses at the en	d of that year.	•		•			

- Table 12 shows reported HIV cases in MSM by race/ethnicity and age group. Among white MSM, the largest proportion of reported HIV cases (42.9%) were in men 30-39 years of age at the time of initial diagnosis. Among black and Hispanic MSM, the largest proportion of cases (44.2% and 41.4%, respectively) were in men 20-29 years of age at the time of diagnosis. In addition, 6.1% of HIV cases in black MSM were diagnosed in teenagers (compared to 1.5% in whites).
- Information obtained through interviews with reported MSM HIV and AIDS cases indicates that at least 24% of these
  men (19% of white men and 37% of black men) have, in addition to having sex with other men, also had sex with
  females. (Note that the actual percentages may be higher because complete information may not have been obtained
  on all reported cases.)

Table 12. Reported HIV Cases in Men Who Have Sex With Men by Race/Ethnicity and Age Group,
Missouri, Cumulative Through December 2002

	W	/hite	В	lack	His	panic	T	otal
Age Group	Cases	s %	Cases	%	Cases	%	Cases	%
13–19	24	(1.5%)	57	(6.1%)	2	(2.9%)	85	(3.2%)
20–29	575	(35.5%)	413	(44.2%)	29	(41.4%)	1,026	(38.7%)
30–39	695	(42.9%)	318	(34.0%)	25	(35.7%)	1,048	(39.5%)
40–49	255	(15.7%)	115	(12.3%)	12	(17.1%)	388	(14.6%)
50+	72	(4.4%)	32	(3.4%)	2	(2.9%)	107	(4.0%)
Missouri Total	1,621	(100.0%)	935	(100.0%)	70 (	(100.0%)	2,654	(100.0%)

#### Where

- Table 13 shows reported HIV cases in MSM by race/ethnicity and geographic area. Of total MSM cases reported from St. Louis City, St. Louis County, Kansas City, and Outstate Missouri, black men make up 45.7%, 40.0%, 34.5%, and 7.5%, respectively. In addition, of the 138 MSM HIV cases reported from Missouri correctional facilities, 73.9% were in black men.
- Of total reported HIV cases in MSM, 73.6% were in men living in either St. Louis City, St. Louis County, or Kansas City
  at the time of diagnosis; in addition, 67.0% of white MSM cases, 84.6% of black MSM cases, and 84.3% of Hispanic
  MSM cases were from one of these three locations.
- Of the 2,654 total HIV cases reported in MSM almost half or 1,307 (49.2%) were from the St. Louis HIV Region and 837 (31.5%) from the Kansas City HIV Region. The total numbers of cases reported from the Outstate HIV Regions were: Southwest, 181 cases; North Central, 104 cases; Southeast, 59 cases; and Northwest, 28 cases. In addition, 138 HIV cases in MSM have been reported from persons residing in Missouri correctional facilities at the time of diagnosis.

Table 13. Reported HIV Cases in Men Who Have Sex With Men by Race/Ethnicity and Geographic Area,
Missouri, Cumulative Through December 2002

	Wh	nite	BI	ack	Hisp	anic	T	otal
Geographic Area Ca	ses	%	Cases	%	Cases	%	Cases	%
St. Louis City4	45	(52.3%)	389	(45.7%)	11	(1.3%)	851	(100.0%)
St. Louis County	18	(56.6%)	154	(40.0%)	10	(2.6%)	385	(100.0%)
Kansas City 42	23	(58.9%)	248	(34.5%)	38	(5.3%)	718	(100.0%)
Outstate	01	(89.1%)	42	(7.5%)	9	(1.6%)	562	(100.0%)
Missouri Correctional Facilities	34	(24.6%)	102	(73.9%)	2	(1.4%)	138	(100.0%)
Missouri Total1,62	21	(61.1%)	935	(35.2%)	70	(2.6%)	2,654	(100.0%)
HIV Region								
St. Louis Region	30	(55.9%)	545	(41.7%)	22	(1.7%)	1,307	(100.0%
Kansas City Region 53	30	(63.3%)	254	(30.3%)	41	(4.9%)	837	(100.0%)
Northwest Region	27	(96.4%)	1	(3.6%)	0	(0.0%)	28	(100.0%)
North Central Region	80	(76.9%)	20	(19.2%)	2	(1.9%)	104	(100.0%)
Southwest Region 10	69	(93.3%)	7	(3.9%)	2	(1.1%)	181	(100.0%)
South west region	51	(86.4%)	6	(10.1%)	1	(1.7%)	59	(100.0%)
Southeast Region	91							
C		(24.6%)	102	(73.9%)	2	(1.4%)	138	(100.0%)

Row total includes American Indians, Asians and other cases not shown in the table/s. As such, the total of white, black and Hispanic cases shown in the table/s may not add up to the total cases.

#### **Trends**

- As indicated in Table 2 (on page 46), a lower proportion of cumulative HIV cases (63.6%), compared to cumulative AIDS cases (70.9%), appear to be MSM, providing evidence that among more recently infected persons a smaller proportion are MSM.
- Since the mid-1980's, black men have, in general, slowly been making up a larger proportion of annually reported AIDS cases in MSM. Of MSM AIDS cases reported in 2002, 37.3% were in black men. By comparison, of MSM AIDS cases reported six years previously (in 1996), 34.9% were in black men.

# Men Who Have Sex With Men and Inject Drugs (MSM/IDU)

### Magnitude of the Problem

- In Missouri, from the beginning of the HIV/AIDS epidemic through 2002, a total of 1,086 HIV Disease cases have been identified as occurring in MSM/IDUs who were residents of Missouri at the time of diagnosis (these cases make up 7.7% of all reported adult/adolescent HIV Disease cases statewide). Of these 1,086 MSM/IDU HIV Disease cases, 813 (74.9%) are AIDS cases and 273 (25.1%) are HIV cases.
- The 813 AIDS cases in MSM/IDUs make up 8.6% of all reported adult/adolescent AIDS cases. In 2002, of the 356 adult/adolescent AIDS cases reported, 13 (3.7%) have, to date, been identified as being in MSM/IDUs.
- The 273 HIV cases in MSM/IDUs make up 5.9% of all reported adult/adolescent HIV cases. In 2002, of the 315 adult/ adolescent HIV cases reported, 10 (3.2%) have, to date, been identified as being in MSM/IDUs.
- These numbers, however, do not indicate the full extent of MSM/IDU involvement since for 286 adult/adolescent AIDS cases, and 499 adult/adolescent HIV cases, the specific exposure category has not yet been determined. These cases are, in general, still under investigation and are currently in the "Other/Unknown" exposure category. If these cases were all assigned to a specific exposure category (e.g., MSM, MSM/IDU, IDU, or heterosexual contact) based on past experience with "Other/Unknown" cases whose exposure category was determined following investigation, the result would be that seen in Table 2 (on page 46). Here it is estimated that approximately 830 (8.8%) of the 9,406 total reported adult/adolescent AIDS cases, and approximately 18 (5.1%) of the 356 adult/adolescent AIDS cases reported in 2002, were in MSM/IDUs. Likewise, it is estimated that approximately 287 (6.2%) of the 4,612 total reported adult/adolescent HIV cases, and approximately 14 (4.4%) of the 315 adult/adolescent HIV cases reported in 2002, were in MSM/IDUs.

### Who

- Table 14 shows reported HIV and AIDS cases in MSM/IDUs by race/ethnicity.
- Of the 273 total reported HIV cases among MSM/IDUs, white men comprise 64.1% and black men make up 32.6%.
   Five MSM/IDU HIV cases have been reported in Hispanic men, and 4 cases have been reported in American Indian men
- White men comprise 65.7% of the 813 total reported AIDS cases among MSM/IDUs, black men make up 31.9%, and Hispanic men account for 1.7%. Six MSM/IDU AIDS cases have been reported in American Indian men.

Table 14. Reported HIV and AIDS Cases in Men Who Have Sex Wtih Men and Inject Drugs
by Race/Ethnicity, Missouri, Reported 2002*, and Cumulative Through December 2002

			AIDS Cases						
Re	porte	d 2002	l 2002* Cumulative			rted 2002	Cumulative		
Race/Ethnicity Ca	se	%	Case	%	Case	%	Case	%	
White	6 (	60.0%)	175	(64.1%)	9	(69.2%)	534	(65.7%)	
Black	2 (	20.0%)	89	(32.6%)	3	(23.1%)	259	(31.9%)	
Hispanic	1 (	10.0%)	5	(1.8%)	1	(7.7%)	14	(1.7%)	
Other/Unknown	1 (	10.0%)	4	(1.5%)	0	(0.0%)	6	(0.7%)	
Total 1	.0 (10	00.0%)	273	(100.0%)	13	(100.0%)	813	(100.0%)	
*HIV cases reported during 2002 which remained HIV	cases a	t the end	of that year.						

- Table 15 shows reported HIV cases in MSM/IDUs by race/ethnicity and age group. Among both white and black MSM/IDUs, the largest proportion of reported HIV cases (44.6% and 42.7%, respectively) were in men 30-39 years of age at the time of initial diagnosis.
- Information obtained through interviews with reported MSM/IDU HIV and AIDS cases indicates that at least 44% of these men (40% of white men and 53% of black men) have, in addition to having sex with other men, also had sex with females. (Note that the actual percentages may be higher because complete information may not have been obtained on all reported cases.)

## HIV Disease Epi Profile Summary: Missouri

Table 15. Reported HIV Cases in Men Who Have Sex With Men and Inject Drugs by Race/Ethnicity and Age Group, Missouri, Cumulative Through December 2002

	W	hite	ВІ	ack	7	Γotal
Age Group	Cases	%	Cases	%	Case	s %
13–19	8	(4.6%)	4	(4.5%)	13	(4.8%)
20–29	62	(35.4%)	27	(30.3%)	93	(34.1%)
30–39	78	(44.6%)	38	(42.7%)	118	(43.2%)
40–49	24	(13.7%)	18	(20.2%)	44	(16.1%)
50+	3	(1.7%)	2	(2.2%)	5	(1.8%)
Missouri Total	175	(100.0%)	89	(100.0%)	273	(100.0%)

### Where

- Table 16 shows reported HIV cases in MSM/IDUs by race/ethnicity and geographic area. Of total MSM/IDU cases reported from St. Louis City, St. Louis County, Kansas City, and Outstate Missouri, blacks make up 61.1%, 30.8%, 24.1%, and 9.5%, respectively. In addition, of the 39 MSM/IDU HIV cases reported from Missouri correctional facilities, 61.5% were in black men.
- Of total reported HIV cases in MSM/IDUs, 54.9% were in men living in either St. Louis City, St. Louis County, or Kansas City at the time of diagnosis.
- Of the 273 total HIV cases reported in MSM/IDUs, 72 (26.4%) were from the St. Louis HIV Region and 100 (36.6%) from the Kansas City HIV Region. The total numbers of cases reported from the Outstate HIV Regions were: Southwest, 34 cases; Southeast, 11 cases; North Central, 11 cases; and Northwest, 6 cases. In addition, 39 HIV cases in MSM/IDUs have been reported from persons residing in Missouri correctional facilities at the time of diagnosis.

Table 16. Reported HIV Cases in Men Who Have Sex With Men and Inject Drugs
by Race/Ethnicity and Geographic Area, Missouri, Cumulative Through December 2002

	White		ВІ	ack	Hisp	anic	T	Total		
Georgraphic Area	Cases	%	Cases	%	Cases	%	Cases	%		
St. Louis City	19	(35.2%)	33	(61.1%)	1	(1.9%)	54	(100.0%)		
St. Louis County	9	(69.2%)	4	(30.8%)	0	(0.0%)	13	(100.0%)		
Kansas City	59	(71.1%)	20	(24.1%)	3	(3.6%)	83	(100.0%)		
Outstate	73	(86.9%)	8	(9.5%)	1	(1.2%)	84	(100.0%)		
Missouri Correctional Facilities	15	(38.5%)	24	(61.5%)	0	(0.0%)	39	(100.0%)		
Missouri Total	175	(64.1%)	89	(32.6%)	5	(1.8%)	273	(100.0%)		
HIV Region										
St. Louis Region	32	(44.4%)	38	(52.8%)	1	(1.4%)	72	(100.0%)		
Kansas City Region	75	(75.0%)	21	(21.0%)	3	(3.0%)	100	(100.0%)		
Northwest Region	5	(83.3%)	0	(0.0%)	0	(0.0%)	6	(100.0%)		
North Central Region	9	(81.8%)	2	(18.2%)	0	(0.0%)	11	(100.0%)		
Southwest Region	30	(88.2%)	2	(5.9%)	1	(2.9%)	34	(100.0%)		
Southeast Region	9	(81.8%)	2	(18.2%)	0	(0.0%)	11	(100.0%)		
Missouri Correctional Facilities	15	(38.5%)	24	(61.5%)	0	(0.0%)	39	(100.0%)		
Missouri Total	175	(64.1%)	89	(32.6%)	5	(1.8%)	273	(100.0%)		
NOTE: Row percentages are shown.										

Row total includes American Indians, Asians and other cases not shown in the table/s. As such, the total of white, black and Hispanic cases shown in the table/s may not add up to the total cases.

### HIV Disease Epi Profile Summary: Missouri

# **Injecting Drug Users (IDUs)**

### Magnitude of the Problem

- In Missouri, from the beginning of the HIV/AIDS epidemic through 2002, a total of 1,102 HIV Disease cases have been identified as occurring in IDUs\* who were residents of Missouri at the time of diagnosis (these cases make up 7.9% of all reported adult/adolescent HIV Disease cases statewide). Of these 1,102 IDU HIV Disease cases, 709 (64.3%) are AIDS cases and 393 (35.7%) are HIV cases.
- The 709 AIDS cases in IDUs make up 7.5% of all reported adult/adolescent AIDS cases. In 2002, of the 356 adult/adolescent AIDS cases reported, 28 (7.9%) have, to date, been identified as being in IDUs.
- The 393 HIV cases in IDUs make up 8.5% of all reported adult/adolescent HIV cases. In 2002, of the 315 adult/ adolescent HIV cases reported, 10 (3.2%) have, to date, been identified as being in IDUs.
- These numbers, however, do not indicate the full extent of IDUs involvement since for 286 adult/adolescent AIDS cases, and 499 adult/adolescent HIV cases, the specific exposure category has not yet been determined. These cases are, in general, still under investigation and are currently in the "Other/Unknown" exposure category. If these cases were all assigned to a specific exposure category (e.g., MSM, MSM/IDU, IDU, or heterosexual contact) based on past experience with "Other/Unknown" cases whose exposure category was determined following investigation, the result would be that seen in Table 2 (on page 46). Here it is estimated that approximately 739 (7.9%) of the 9,406 total reported adult/adolescent AIDS cases, and approximately 37 (10.4%) of the 356 adult/adolescent AIDS cases reported in 2002, were in IDUs. Likewise, it is estimated that approximately 418 (9.1%) of the 4,612 total reported adult/adolescent HIV cases, and approximately 17 (5.4%) of the 315 adult/adolescent HIV cases reported in 2002, were in IDUs.

#### Who

- Table 17 shows reported HIV and AIDS cases in IDUs by race/ethnicity and gender.
- White males comprise 33.8% of the 393 total reported HIV cases among IDUs; black males make up 31.8%; black females 16.3%; and white females 14.5%. Nine IDU HIV cases have been reported in Hispanic males, and 1 case in a Hispanic female. Two IDU HIV cases have been reported in American Indians.
- Black males comprise 32.3% of the 709 total reported AIDS cases among IDUs; white males make up 31.7%; black females 17.9%; white females 13.7%; Hispanic males, 3.2%; and Hispanic females, 0.8% (6 cases). Two IDU AIDS cases have been reported in American Indians.

Table 17. Reported HIV and AIDS Cases in Injecting Drug Users by Race/Ethnicity and Gender,
Missouri, Reported 2002*, and Cumulative Through December 2002

		HIV	Cases		AIDS Cases					
F	Repor	ted 2002*	Cum	ulative	Repo	rted 2002	Cum	ulative		
Race/Ethnicity and Gender C	Case	%	Case	%	Case	%	Case	%		
White Male	9	(90.0%)	133	(33.8%)	11	(39.3%)	225	(31.7%)		
Black Male	0	(0.0%)	125	(31.8%)	9	(32.1%)	229	(32.3%)		
Hispanic Male	0	(0.0%)	9	(2.3%)	1	(3.6%)	23	(3.2%)		
White Female	1	(10.0%)	57	(14.5%)	5	(17.9%)	97	(13.7%)		
Black Female	0	(0.0%)	64	(16.3%)	2	(7.1%)	127	(17.9%)		
Hispanic Female	0	(0.0%)	1	(0.3%)	0	(0.0%)	6	(0.8%)		
Total	. 10	(100.0%)	393	(100.0%)	28	(100.0%)	709	(100.0%)		
*HIV cases reported during 2002 which remained H	HIV cas	es at the end	of that year.							

• Table 18 shows reported HIV cases in IDUs by race/ethnicity, gender, and age group. Among white male, black male, and black female IDUs, the largest proportion of reported HIV cases (46.6%, 47.2%, and 48.4%, respectively) were in persons 30-39 years of age at the time of initial diagnosis. Among white females, the largest proportion of reported HIV cases (40.4%) were in women 20-29 years of age at the time of diagnosis.

<sup>\*</sup> For an HIV-infected man to be placed in the IDU exposure category, he must, in addition to acknowledging injecting drug use, have denied having sex with other men. If he states that he has had sex with other men, he will be classified as an MSM/IDU.

(48.4%) ...... 181

(23.4%) ...... 65

(7.8%) .......... 17

(46.1%)

(16.5%)

(4.3%)

(100.0%)

(38.6%) ...... 31

(10.5%) ....... 15

(0.0%) .......... 5

(100.0%) .......64 (100.0%) ...... 393

Table 18. Reported HIV Cases in Injecting Drug Users by Race/Ethnicity, Gender, and Age Group, Missouri, Cumulative Through December 2002											
	White	Males	Black	ck Males White Females Black Females					Tot	al	
Age Group	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%	
13–19	4	(3.0%)	3	(2.4%)	6	(10.5%)	2	(3.1%)	15	(3.8%)	
20–29	47	(35.3%)	30	(24.0%)	23	(40.4%)	11	(17.2%)	115	(29.3%)	

22

6

0

(47.2%)

(20.8%)

(5.6%)

(46.6%) ...... 59

(12.0%) ....... 26

Missouri Total...... 133 (100.0%) ..... 125 (100.0%)

### Where

30–39 ...... 62

40–49 ...... 16

50+......4

- Table 19 shows reported HIV cases in IDUs by race/ethnicity and geographic area. Of total IDU cases reported from St. Louis City, St. Louis County, Kansas City, and Outstate Missouri, blacks make up 82.0%, 65.2%, 60.8%, and 7.3%, respectively. In addition, of the 78 IDU HIV cases reported from Missouri correctional facilities, 56.4% were in blacks.
- Of total reported HIV cases in IDUs, 48.6% were in persons living in either St. Louis City, St. Louis County, or Kansas City at the time of diagnosis; in addition, 25.8% of white IDU HIV cases, 72.0% of black IDU cases, and 50.0% of Hispanic IDU cases were from one of these three locations. (According to 2000 population estimates, approximately 32% of Missouri's total population, 25% of the state's white population, 81% of the black population, and 44% of the Hispanic population resides in either St. Louis City, St. Louis County, or Kansas City.)
- Of the 393 total HIV cases reported in IDUs, 127 (32.3%) were from the St. Louis HIV Region and 97 (24.7%) from the Kansas City HIV Region. The total numbers of cases reported from the Outstate HIV Regions were: Southwest, 53 cases; North Central, 20 cases; Southeast, 14 cases; and Northwest, 4 cases. In addition, 78 HIV cases in IDUs have been reported from persons residing in Missouri correctional facilities at the time of diagnosis.

	WI	hite E	Black	Hisp	anic	To	otal
Georgraphic Area	Cases	% Cases	%	Cases	%	Cases	%
St. Louis City	16	(18.0%) 73	(82.0%)	0	(0.0%)	89	(100.0%)
St. Louis County	7	(30.4%) 15	(65.2%)	0	(0.0%)	23	(100.0%
Kansas City	26	(32.9%) 48	(60.8%)	5	(6.3%)	79	(100.0%
Outstate	110	(88.7%) 9	(7.3%)	4	(3.2%)	124	(100.0%
Missouri Correctional Facilities	31	(39.7%) 44	(56.4%)	1	(1.3%)	78	(100.0%
Missouri Total	190	(48.3%) 189	(48.1%)	10	(2.5%)	393	(100.0%)
HIV Region							
HIV Region							
St. Louis Region		(29.9%)	(69.3%)	0	(0.0%)		(100.0%
St. Louis Region	42	(43.3%) 49	(50.5%)	0 6	(6.2%)	97	(100.0%
St. Louis Region	42 4	(43.3%)	(50.5%) (0.0%)	0 6 0	(6.2%) (0.0%)	97 4	(100.0% (100.0%
St. Louis Region	42 4 19	(43.3%)	(50.5%) (0.0%) (5.0%)	0 6 0	(6.2%) (0.0%) (0.0%)	97 4 20	(100.0% (100.0% (100.0%
St. Louis Region	42 4 19 45	(43.3%)       49         (100.0%)       0         (95.0%)       1         (84.9%)       4	(50.5%) (0.0%) (5.0%) (7.5%)	0 6 0 0	(6.2%) (0.0%) (0.0%) (5.7%)	97 4 20 53	(100.0% (100.0% (100.0% (100.0%
St. Louis Region	42 4 19 45 11	(43.3%)       49         (100.0%)       0         (95.0%)       1         (84.9%)       4         (78.6%)       3	(50.5%) (0.0%) (5.0%) (7.5%) (21.4%)	06000	(6.2%) (0.0%) (0.0%) (5.7%) (0.0%)	97 20 53	(100.0% (100.0% (100.0% (100.0% (100.0%
HIV Region  St. Louis Region  Kansas City Region  Northwest Region  North Central Region  Southwest Region  Southeast Region  Missouri Correctional Facilities	42 4 19 45 11	(43.3%)       49         (100.0%)       0         (95.0%)       1         (84.9%)       4	(50.5%) (0.0%) (5.0%) (7.5%)	06000	(6.2%) (0.0%) (0.0%) (5.7%)	97 20 53	(100.0% (100.0% (100.0% (100.0%

Row total includes American Indians, Asians and other cases not shown in the table/s. As such, the total of white, black and Hispanic cases shown in the table/s may not add up to the total cases.

# **Heterosexual Contacts**

### Magnitude of the Problem

- In Missouri, from the beginning of the HIV/AIDS epidemic through 2002, a total of 1,585 HIV Disease cases have been identified as occurring in heterosexual contacts who were residents of Missouri at the time of diagnosis (these cases make up 11.3% of all reported adult/adolescent HIV Disease cases statewide). Of these 1,585 heterosexual contact HIV Disease cases, 837 (52.8%) are AIDS cases and 748 (47.2%) are HIV cases.
- The 837 AIDS cases in heterosexual contacts make up 8.9% of all reported adult/adolescent AIDS cases. In 2002, of the 356 adult/adolescent AIDS cases reported, 47 (13.2%) have, to date, been identified as being in heterosexual contacts.
- The 748 HIV cases in heterosexual contacts make up 16.2% of all reported adult/adolescent HIV cases. In 2002, of the 315 adult/adolescent HIV cases reported, 35 (11.0%) have, to date, been identified as being in heterosexual contacts
- These numbers, however, do not indicate the full extent of heterosexual contact involvement since for 286 adult/ adolescent AIDS cases, and 499 adult/adolescent HIV cases, the specific exposure category has not yet been determined. These cases are, in general, still under investigation and are currently in the "Other/Unknown" exposure category. If these cases were all assigned to a specific exposure category (e.g., MSM, MSM/IDU, IDU, or heterosexual contact) based on past experience with "Other/Unknown" cases whose exposure category was determined following investigation, the result would be that seen in Table 2 (on page 46). Here it is estimated that approximately 912 (9.7%) of the 9,406 total reported adult/adolescent AIDS cases, and approximately 76 (21.3%) of the 356 adult/adolescent AIDS cases reported in 2002, were in heterosexual contacts. Likewise, it is estimated that approximately 931 (20.2%) of the 4,612 total reported adult/adolescent HIV cases, and approximately 91 (28.9%) of the 315 adult/adolescent HIV cases reported in 2002, were in heterosexual contacts.

### Who

- Table 20 shows reported HIV and AIDS cases in heterosexual contacts by race/ethnicity and gender.
- Black females comprise 45.3% of the 748 total reported HIV cases among heterosexual contacts; white females make up 27.8%; black males 16.7%; and white males 7.4%. Three heterosexual contact HIV cases have been reported in Hispanic males, and 7 cases in Hispanic females. Two heterosexual contact HIV cases have been reported in American Indians, and 5 cases in Asians.
- Black females comprise 42.7% of the 837 total reported AIDS cases among heterosexual contacts; white females make up 29.2%; black males 14.8%; and white males 11.0%. Four heterosexual contact AIDS cases have been reported in Hispanic males, and 13 cases in Hispanic females. Four heterosexual contact AIDS cases have been reported in American Indians, and 3 cases in Asians.

Table 20. Reported HIV and AIDS Cases in Heterosexual Contacts by Race/Ethnicity and Gender, Missouri, Reported 2002\*, and Cumulative Through December 2002

		HIV	Cases			AIDS	Cases	
R	eporte	ed 2002	* Cum	ulative	Repo	rted 2002	Cun	nulative
Race/Ethnicity and Gender C	ase	%	Case	%	Case	%	Case	%
White Male	1	(2.9%)	55	(7.4%)	5	(10.6%)	92	(11.0%)
Black Male	4	(11.4%)	125	(16.7%)	6	(12.8%)	124	(14.8%)
Hispanic Male	1	(2.9%)	3	(0.4%)	0	(0.0%)	4	(0.5%)
White Female	12	(34.3%)	208	(27.8%)	7	(14.9%)	244	(29.2%)
Black Female	17	(48.6%)	339	(45.3%)	27	(57.4%)	357	(42.7%)
Hispanic Female	0	(0.0%)	7	(0.9%)	2	(4.3%)	13	(1.6%)
Total	<b>35</b> (1	100.0%)	748	(100.0%)	47	(100.0%)	837	(100.0%)
*HIV cases reported during 2002 which remained HI	IV cases	s at the en	d of that year.					

• Table 21 shows reported HIV cases in heterosexual contacts by race/ethnicity, gender, and age group. Among black male heterosexual contacts, the largest proportion of reported HIV cases (38.4%) were in persons 30-39 and 20-29 years of age at the time of initial diagnosis. Among white male heterosexual cases, the largest proportion of reported HIV cases (34.5%) were also in persons 30-39 years of age at the time of initial diagnosis. Among white female and black female heterosexual contacts, the largest proportion of reported HIV cases (46.2% and 40.1%, respectively) were in persons 20-29 years of age at the time of initial diagnosis.

### HIV Disease Epi Profile Summary: Missouri

Table 21	Table 21. Reported HIV Cases in Heterosexual Contacts by Race/Ethnicity, Gender, and Age Group, Missouri, Cumulative Through December 2002											
	White M	White Males Black Males White Fema				males	Black Fe	males	Tota	ıl		
ıp	Cases	%	Cases	%	Cases	%	Cases	%	Cases	•		

	White Males		Black	Black Males		White Females		<b>Black Females</b>		tal
Age Group	Cases	%	Cases	s %	Cases	%	Cases	s %	Cases	%
13–19	1	(1.8%).	4	(3.2%)	23	(11.1%)	51	(15.0%).	80	(10.7%)
20–29	17	(30.9%).	48	(38.4%)	96	(46.2%)	136	(40.1%).	305	(40.8%)
30–39	19	(34.5%).	48	(38.4%)	56	(26.9%)	109	(32.2%).	238	(31.8%)
40–49	11	(20.0%).	17	(13.6%)	22	(10.6%)	35	(10.3%).	90	(12.0%)
50+	7	(12.7%).	8	(6.4%)	11	(5.3%)	8	(2.4%).	35	(4.7%)
Missouri Total	55 (	(100.0%) .	125	(100.0%)	208	(100.0%)	339	(100.0%) .	748	(100.0%)

### Where

- Table 22 shows reported HIV cases in heterosexual contacts by race/ethnicity and geographic area. Of total heterosexual contact cases reported from St. Louis City, St. Louis County, Kansas City, and Outstate Missouri, blacks make up 87.9%, 70.5%, 67.6%, and 28.9%, respectively. In addition, of the 39 heterosexual contact HIV cases reported from Missouri correctional facilities, 74.4% were in blacks.
- Of total reported HIV cases in heterosexual contacts, 62.4% were in persons living in either St. Louis City, St. Louis County, or Kansas City at the time of diagnosis; in addition, 34.2% of white heterosexual contact HIV cases, 78.7% of black heterosexual contact cases, and 50.0% of Hispanic heterosexual contact cases were from one of these three locations. (According to 2000 population estimates, approximately 32% of Missouri's total population, 25% of the state's white population, 81% of the black population, and 44% of the Hispanic population resides in either St. Louis City, St. Louis County, or Kansas City.)
- Of the 748 total HIV cases reported in heterosexual contacts, 384 (51.3%) were from the St. Louis HIV Region and 143 (19.1%) from the Kansas City HIV Region. The total numbers of cases reported from the Outstate HIV Regions were: Southwest, 86 cases; North Central, 46 cases; Southeast, 39 cases; and Northwest, 11 cases. In addition, 39 HIV cases in heterosexual contacts have been reported from persons residing in Missouri correctional facilities at the time of diagnosis.

Table 22. Reported HIV Cases in Heterosexual Contacts by Race/Ethnicity and Geographic Area,
Missouri, Cumulative Through December 2002

	W	hite	Black			anic	T	otal
Georgraphic Area	Cases	%	Cases	%	Cases	%	Cases	%
St. Louis City	25	(11.2%)	197	(87.9%)	0	(0.0%)	224	(100.0%)
St. Louis County	34	(25.8%)	93	(70.5%)	2	(1.5%)	132	(100.0%)
Kansas City	31	(27.9%)	75	(67.6%)	3	(2.7%).	111	(100.0%)
Outstate	165	(68.2%)	70	(28.9%)	4	(1.7%).	242	(100.0%)
Missouri Correctional Facilities	8	(20.5%)	29	(74.4%)	1	(2.6%).	39	(100.0%)
Missouri Total	263	(35.2%)	464	(62.0%)	10	(1.3%)	748	(100.0%)
HIV Region								
St. Louis Region	83	(21.6%)	294	(76.6%)	2	(0.5%)	384	(100.0%)
Kansas City Region	56	(39.2%)	81	(56.6%)	4	(2.8%).	143	(100.0%)
Northwest Region	8	(72.7%)	3	(27.3%)	0	(0.0%).	11	(100.0%)
North Central Region	26	(56.5%)	19	(41.3%)	0	(0.0%).	46	(100.0%)
Southwest Region	61	(70.9%)	20	(23.3%)	3	(3.5%).	86	(100.0%)
Southeast Region	21	(53.8%)	18	(46.2%)	0	(0.0%).	39	(100.0%)
Missouri Correctional Facilities	8	(20.5%)	29	(74.4%)	1	(2.6%)	39	(100.0%)
Missouri Total	263	(35.2%)	464	(62.0%)	10	(1.3%)	748	(100.0%)

Row total includes American Indians, Asians and other cases not shown in the table/s. As such, the total of white, black and Hispanic cases shown in the table/s may not add up to the total cases.

### **Trends**

• As indicated in Table 2 (on page 46), a higher proportion of cumulative HIV cases (20.2%), compared to cumulative AIDS cases (9.7%), appear to be heterosexual contacts, providing evidence that among more recently infected persons a larger proportion are heterosexual contacts.

## Gonorrhea

### Magnitude of the Problem

• During 2002, 8,952 cases of gonorrhea were reported in Missouri; the corresponding rate\* was 160.0 cases per 100,000 population. In the U.S., 343,441 cases of gonorrhea were reported in 2002, with a corresponding rate of 122.0 cases per 100,000 population. Missouri's rate is 1.3 times higher than the U.S. rate. Missouri ranks 13th among the fifty states in rates of reported gonorrhea cases in 2002. Because of underdiagnosis and underreporting, the actual number of persons infected with *Neisseria gonorrhoeae* was undoubtedly much higher.

### Who

- Of the 8,952 gonorrhea cases reported in 2002, 46.3% were in males and 53.7% were in females. Among blacks, a higher proportion of cases were reported in males (51.6%) than in females (48.4%). Among whites, a much higher proportion of cases were reported in females (69.0%) than in males (31.0%).
- Of the 8,952 cases of gonorrhea reported in 2002, 6,289 (70.3%) were in blacks, 1,339 (15.0%) in whites, 26 (0.3%) in Asians, 7 (0.1%) in American Indians, and 60 (0.7%) were classified as Other. For 1,231 (13.8%) cases, race was not indicated.
- Among reported gonorrhea cases, blacks were very disproportionately represented. In 2002, approximately six times
  as many cases were reported in blacks compared to whites. The rate\* of reported cases in blacks (999.2) was about
  35 times the rate in whites (28.2).
- Table 1 shows the numbers and rates of reported gonorrhea cases in whites and blacks for Missouri, St. Louis City and County, Kansas City, and Outstate Missouri.
- A substantial proportion of reported gonorrhea cases in females are in teenagers. In 2002, persons 13-19 years of age
  made up 40.0% of black female cases, 37.0% of white female cases, 19.6% of black male cases, and 15.2% of white
  male cases. Figure 2 shows the distribution of cases by age group for white and black males and females.

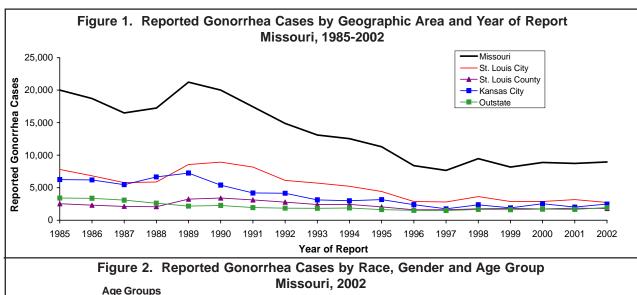
### Where

- In 2002, of the 8,952 gonorrhea cases reported, 2,737 (30.6%) were from St. Louis City, 2,486 (27.8%) from Kansas City, 1,793 (20.0%) from St. Louis County, and 1,936 (21.8%) from the remainder of the state (Outstate Missouri). Cases were reported in 91 of the state's 114 counties. Figure 3 shows the number of gonorrhea cases reported from each county in 2002.
- The highest rate of reported gonorrhea cases in 2002 was in St. Louis City (786.1), followed by Kansas City (563.2), St. Louis County (176.4), and Outstate Missouri (51.1).
- In the U.S., among selected cities of >200,000 population, St. Louis City ranked first and Kansas City ranked fifth in year 2002 for gonorrhea incidence rate per 100,000 population.
- A summary of reported gonorrhea cases by county is shown in the table on page 67.

### **Trends**

- The annual number of reported cases of gonorrhea in Missouri has remained fairly stable during the past 5 years. The 8,952 gonorrhea cases reported in 2002 represented an 2.6% increase from the 8,723 cases reported in 2001. Figure 1 shows the trends in reported gonorrhea cases from 1985-2002 for Missouri, St. Louis City and County, Kansas City, and Outstate Missouri.
- From 2001 to 2002, reported cases of gonorrhea in St. Louis City decreased by 14.1% (from 3,185 to 2,737 cases); reported St. Louis County cases decreased by 2.9% (from 1,847 to 1,793 cases); reported Kansas City cases increased by 22.8% (from 2,024 to 2,486 cases); and reported Outstate cases increased by 16.1% (from 1,667 to 1,936 cases). The increases in Kansas City and Outstate Missouri are significant.

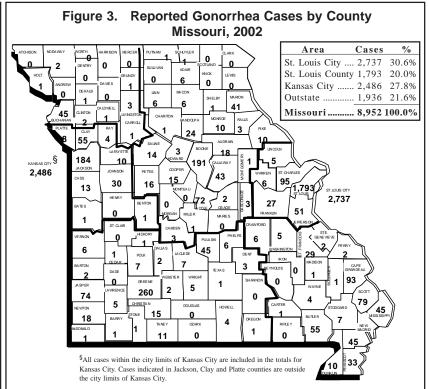
<sup>\*</sup>All rates in this report are per 100,000 population.



Age Groups 1,164 1,200 ■10-14 yrs 1.068 1,035 Reported Gonorrhea Cases ■15-19 yrs 1,000 **20**−24 yrs **25**−29 yrs 800 628 ■30-34 yrs 600 **■** 35-39 yrs 399 ■ 40+ yrs 332 332 400 <sup>118</sup>68 <sub>50 43</sub> 71 130 200 10192 47 37 32 Black Male (n=3,238) White Male (n=413) White Female (n=920) Black Female (n=3,031) **Race and Gender** Other/Unknown (n=1,350)

Table 1. Reported Gonorrhea Cases and Rates by Race and Geographic Area, Missouri, 2002

	Cases	%	Rate*
Missouri			
Whites	1,339	15.0%	28.2
Blacks	6,289	70.3%	999.2
Other/Unknown	1,324	14.8%	
Total Cases	8,952	100.0%	160.0
St. Louis City			
Whites	107	3.9%	70.1
Blacks		82.6%	1,267.8
Other/Unknown	, ,	13.5%	
Total Cases		100.0%	786.1
	,		
St. Louis County			
Whites		7.5%	17.3
Blacks		75.6%	701.5
Other/Unknown		16.8%	
Total Cases	1,793	100.0%	176.4
Kansas City			
Whites	250	10.0%	93.3
Blacks		77.3%	1,393.3
Other/Unknown		12.8%	
Total Cases		100.0%	563.2
0-1-1-1-	-		
Outstate			
Whites		43.8%	23.9
Blacks		38.8%	626.9
Other/Unknown		17.4%	
Total Cases	1,936	100.0%	51.1
Per 100,000 population			



# Primary and Seconday (P&S) Syphilis

### Magnitude of the problem

- During 2002, 34 cases of primary and secondary (P&S) syphilis were reported in Missouri; the corresponding rate\* was 0.6 cases per 100,000 population, which is lower than the U.S. rate of 2.4 cases per 100,000. Missouri ranked 38th among the fifty states in rates of reported P&S syphilis cases in 2002.
- During 2001, 26 cases of P&S syphilis were reported in Missouri, compared to 6,103 cases reported nationwide. The
  rate of P&S syphilis cases reported in Missouri (0.5) was less than the U.S. rate (2.2). Missouri ranked 33rd among
  the fifty states in rates of reported P&S syphilis cases in 2001.
- Because of underdiagnosis and underreporting, the actual number of persons recently infected with Treponema
  pallidum (the microorganism that causes syphilis) was likely higher than is indicated by the number of reported
  cases.

### Who

- Of the 34 P&S syphilis cases reported in 2002, 70.6% were in males and 29.4% were in females.
- Of the 34 cases of P&S syphilis reported in 2002, 20 (58.8%) were in blacks, 12 (35.3%) in whites, and 2 (5.9%) were classified as Other/Unknown.
- Blacks are disproportionately represented among reported P&S syphilis cases. The rate for cases reported in 2002 in blacks (3.2) was approximately 11 times the rate for cases in whites (0.3).
- Table 1 shows the numbers and rates of reported P&S syphilis cases in whites and blacks for Missouri, St. Louis City and County, Kansas City, and Outstate Missouri.
- The average age at the time of diagnosis is higher for reported cases of P&S syphilis as compared to reported cases of chlamydia or gonorrhea. For reported cases of P&S syphilis in males during 2002, the largest proportion of cases (29.2%) were in the 40+ age group. For females, the largest proportion of cases (30.0%) were found in the 25-29 and 40+ age groups. Figure 2 shows the distribution of cases by age group for white and black males and females.

### Where

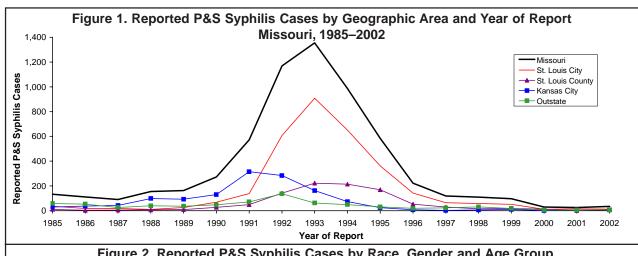
- Of the 34 P&S syphilis cases reported in 2002, 13 (38.2%) were from St. Louis City, 7 (20.6%) from Kansas City, 7 (20.6%) from St. Louis County, and 7 (20.6%) from Outstate Missouri. Cases were reported in only 9 of the state's 114 counties. Figure 3 shows the number of P&S syphilis cases reported from each county in 2002.
- The highest rate of reported P&S syphilis cases in 2002 was in St. Louis City (3.7), followed by Kansas City (1.6), St. Louis County (0.7) and Outstate Missouri (0.2).
- A summary of reported P&S syphilis cases by county is shown in the table on page 69.

### **Trends**

- Since 1993, when a syphilis outbreak in the St. Louis area was at its height, the annual number of reported cases of P&S syphilis in Missouri has been decreasing. However, the 34 cases reported in 2002 represented a 30.8% increase from the 26 cases reported in 2001. Figure 1 shows the trends in reported P&S syphilis cases from 1985-2002 for Missouri, St. Louis City and County, Kansas City, and Outstate Missouri.
- From 2001 to 2002, reported cases of P&S syphilis decreased by 13.3% (from 15 to 13 cases) in St. Louis City. Reported cases from St. Louis County increased dramatically by 600.0% (from 1 to 7 cases); reported Outstate cases increased by 40.0% (from 5 to 7 cases), and reported Kansas City cases increased by 40.0% (from 5 to 7 cases).
- The overall increase in the state cases and rate from 2001 to 2002 has been due to the increase of cases reported from St. Louis County.

Note: In addition to the 34 cases of P&S syphilis reported in 2002, 51 cases of early latent (duration of less than one year) syphilis were reported in Missouri residents (see pages 70-71), and 1 congenital syphilis case was reported.

<sup>\*</sup>All rates in this report are per 100,000 population.



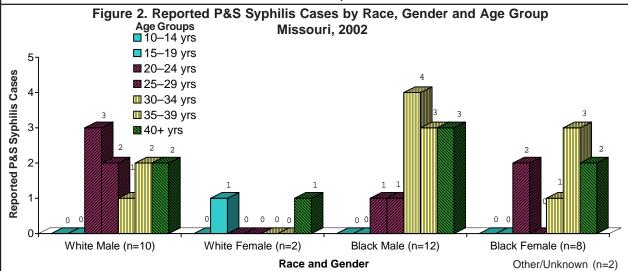
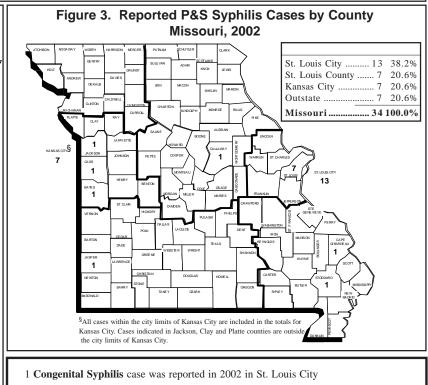


Table 1. Reported P&S Syphilis Cases and Rates by Race and Geographic Area, Missouri, 2002

Cas	es %	Rate*
Missouri		
Whites 1	2 35.3%	0.3
Blacks2	20 58.8%	3.2
Other/Unknown	2 5.9%	
Total Cases	34 100.0%	0.5
0.1.20		
St. Louis City		
Whites		2.6
Blacks		6.0
Other/Unknown		
Total Cases	13 100.0%	3.7
St. Louis County		
Whites	1 14.3%	0.1
Blacks		2.6
		2.0
Other/Unknown		
Total Cases	7 100.0%	0.7
Kansas City		
Whites	1 14.3%	0.4
Blacks		3.6
Other/Unknown		
Total Cases		1.6
Total Cases	2001070	1.0
Outstate		
Whites	6 85.7%	0.2
Blacks	1 14.3%	0.8
Other/Unknown	0.0%	
Total Cases	7 100.0%	0.2
Per 100,000 population		



# **Early Latent Syphilis**

### Magnitude of the problem

- During 2002, 51 cases of early latent (duration of less than one year) syphilis were reported in Missouri; the corresponding rate\* was 0.9 cases per 100,000 population.
- During 2001, 33 cases of early latent syphilis were reported in Missouri, compared to 8,701 cases reported nationwide. The rate\* of early latent syphilis cases reported in Missouri (0.6) was less than the U.S. rate (3.1).

### Who

- Of the 51 early latent syphilis cases reported in 2002, 60.8% were in males and 39.2% were in females.
- Of the 51 cases of early latent syphilis reported in 2002, 35 (68.6%) were in blacks, and 14 (27.5%) in whites. Table
  1 shows the numbers, percentages, and rates of reported early latent syphilis cases in whites and blacks for Missouri,
  St. Louis City and County, Kansas City, and Outstate Missouri.
- Blacks are disproportionately represented among reported early latent syphilis cases. The rate for cases reported in 2002 in blacks (5.6) was approximately 19 times the rate for cases in whites (0.3).
- The average age at the time of diagnosis was higher for reported cases of early latent syphilis as compared to reported cases of chlamydia or gonorrhea. For reported cases of early latent syphilis in males during 2002, the largest proportion of cases (45.2%) were in the 40+ age group. For females, the largest proportion of cases (25.0%) were in the 20-24 and the 35-39 age groups. However, 55.0% of all female cases were in women 30 years of age and older. Figure 2 shows the distribution of cases by age group for white and black males and females.

#### Where

- Of the 51 early latent syphilis cases reported in 2002, 23 (45.1%) were from St. Louis City, followed by 13 (25.5%) from St. Louis County, 8 (15.7%) from Outstate Missouri, and 7 (13.7%) from Kansas City. Cases were reported in only 10 of the state's 114 counties. Figure 3 shows the number of early latent syphilis cases reported from each county in 2002.
- The highest rate of reported early latent syphilis cases in 2002 was in St. Louis City (6.6), followed by Kansas City (1.6), St. Louis County (1.3), and Outstate Missouri (0.2).
- A summary of reported early latent syphilis cases by county is shown in the table on page 71.

### **Trends**

- Since 1993, when a syphilis outbreak in the St. Louis area was at its height, the annual number of reported cases of early latent syphilis in Missouri decreased steadily till 2001. The 51 cases reported in 2002 represented a 54.5% increase from the 33 cases reported in 2001. Figure 1 shows the trends in reported early latent syphilis cases from 1992-2002 for Missouri, St. Louis City and County, Kansas City, and Outstate Missouri.
- From 2001 to 2002, reported cases of early latent syphilis increased by 53.3% (from 15 to 23 cases) in St. Louis City; reported cases from St. Louis County increased by 116.7% (from 6 to 13 cases); reported Kansas City cases increased by 250.0% (from 2 to 7 cases); and reported Outstate cases decreased by 20.0% (from 10 to 8 cases).

**Note:** In addition to the 51 cases of early latent syphilis reported in 2002, 34 cases of P&S syphilis were reported in Missouri residents (see pages 68-69), and 1 congenital syphilis case was reported.

<sup>\*</sup>All rates in this report are per 100,000 population.

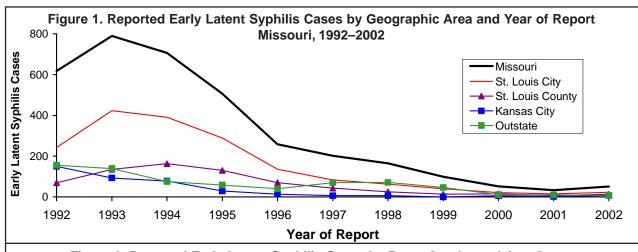
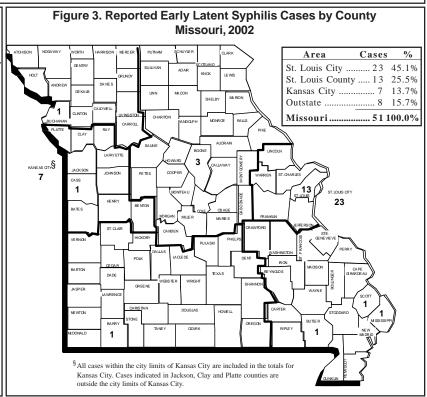


Figure 2. Reported Early Latent Syphilis Cases by Race, Gender and Age Group Missouri, 2002 Age Groups Reported Early Latent Syphilis Cases ■10-14 yrs ■15-19 yrs **20**−24 yrs **25**−29 yrs **■** 30–34 yrs **■** 35–39 yrs **■** 40+ yrs 0 0 Black Male (n=21) White Male (n=9) White Female (n=5) Black Female (n=14) **Race and Gender** Other/Unknown (n=2)

Table 1. Reported Early Latent Syphilis Cases and Rates by Race and Geographic Area, Missouri, 2002

	, =	
Case	es %	Rate*
Missouri		
Whites 1	4 27.5%	0.3
Blacks3	5 68.6%	5.6
Other/Unknown	2 3.9%	
Total Cases5	1 100.0%	0.9
St. Louis City		
Whites	3 13.0%	2.0
Blacks		11.2
Other/Unknown		11.2
Total Cases2		6.6
Total Cases2	3 100.0 /0	0.0
St. Louis County		
Whites	2 15.4%	0.3
Blacks 1	1 84.6%	5.7
Other/Unknown	0.0%	
Total Cases1	3 100.0%	1.3
Kansas City		
Whites	3 42.9%	1.1
Blacks		1.5
Other/Unknown		
Total Cases		1.6
Total Cases	7 100.0 70	1.0
Outstate		
Whites	6 75.0%	0.2
Blacks	2 25.0%	1.7
Other/Unknown	0.0%	
Total Cases	8 100.0%	0.2
Per 100,000 population		



# Chlamydia

### Magnitude of the problem

- During 2002, 16,181 cases of chlamydia were reported in Missouri; the corresponding rate\* of 289.2 cases per 100,000 population is slightly higher than the U.S. rate of 288.6. Missouri ranked 23rd among the fifty states in rates of reported chlamydia cases in 2002.
- During 2001, 13,949 cases of chlamydia were reported in Missouri, with 783,242 cases reported nationwide. The rate of reported chlamydia cases in Missouri (249.3) was lower than the U.S. rate (278.3). Missouri ranked 26th among the fifty states in rates of reported chlamydia cases in 2001.
- Because of underdiagnosis (chlamydial infection frequently occurs without noticeable signs/symptoms) and underreporting, the actual number of persons infected with *Chlamydia trachomatis* was undoubtedly much higher in Missouri and in the U.S.

### Who

- Of total chlamydia cases reported in 2002, the substantial majority were in females (81.9%). This reflects the selective
  screening of females for chlamydia undertaken by the Missouri Infertility Prevention Project (MIPP). If similar widespread
  screening of males were also undertaken, the number of diagnosed and reported cases in males would be much
  higher than is currently seen.
- Of the 16,181 cases of chlamydia reported in 2002, 7,280 (45.0%) cases were in blacks, 5,474 (33.8%) in whites, 86 (0.5%) in Asians, and 19 (0.1%) in American Indians; in addition, 215 (1.3%) cases were classified as Other. For 3,107 (19.2%) cases, race was not indicated.
- Blacks are disproportionately represented among reported chlamydia cases in Missouri. The rate for cases reported in 2002 in blacks (1,256.7) was approximately 11 times the rate for cases in whites (115.3).
- Table 1 shows the numbers and rates of reported chlamydia cases in whites and blacks for Missouri, St. Louis City and County, Kansas City, and Outstate Missouri.
- In 2002, 45.5% of reported chlamydia cases in females were in teenagers. Persons 13-19 years of age made up 45.8% of black female cases, 45.4% of white female cases, 29.6% of black male cases, and 25.8% of white male cases. Figure 2 shows the distribution of cases by age group for white and black males and females.

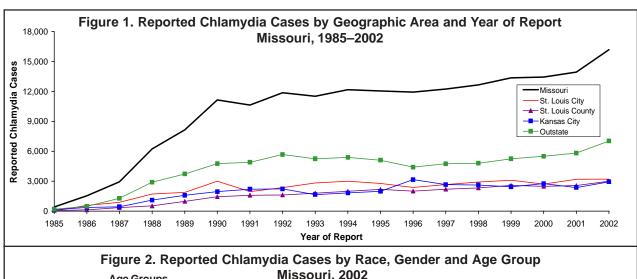
### Where

- Of the 16,181 chlamydia cases reported in 2002, the largest number, 7,037 (43.5%), were from Outstate Missouri, followed by 3,202 (19.8%) from St. Louis City, 3,000 (18.5%) from St. Louis County, and 2,942 (18.2%) from Kansas City.
- The highest rate of reported cases in 2002 was in St. Louis City (919.6), followed by Kansas City (666.5), St. Louis County (295.2), and Outstate Missouri (185.7).
- Figure 3 shows the number of chlamydia cases reported in each county in 2002. Only two counties in Missouri did not report at least one chlamydia case in 2002.
- A summary of reported chlamydia cases by county is shown in the table on page 73.

### **Trends**

- In 2002, the 16,181 reported cases of chlamydia represented a 16.0% increase from the 13,949 cases reported in 2001. Figure 1 shows the trends in reported chlamydia cases from 1985-2002 for Missouri, St. Louis City and County, Kansas City, and Outstate Missouri.
- From 2001 to 2002, reported cases of chlamydia in Kansas City increased by 24.3% (from 2,367 to 2,942 cases), reported Outstate cases increased by 20.8% (from 5,827 to 7,037 cases), reported St. Louis County cases increased by 17.2% (from 2,560 to 3,000 cases), and St. Louis City increased by 0.2% (from 3,195 to 3,202 cases). These overall increases may be attributed to increased screening for females throughout the state in recent years.

<sup>\*</sup>All rates in this report are per 100,000 population.



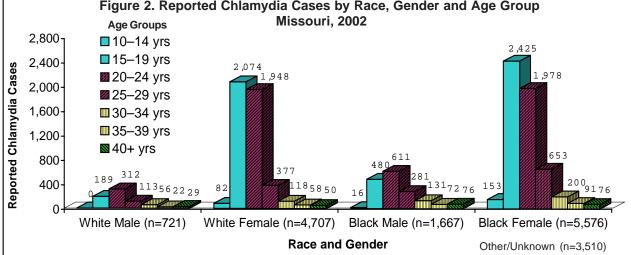
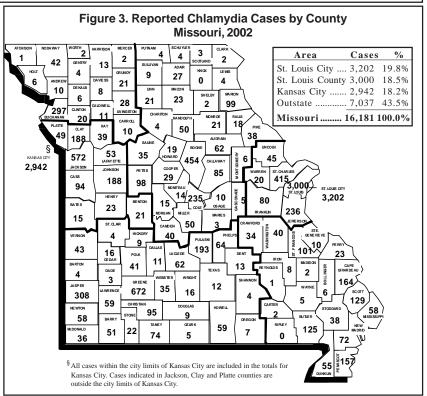


Table 1. Reported Chlamydia Cases and Rates by Race and Geographic Area, Missouri, 2002

	Cases	%	Rate*
Missouri			
Whites	5,474	33.8%	115.3
Blacks	7,280	45.0%	1,256.7
Other/Unknown	3,427	21.2%	
Total Cases	16,181	100.0%	289.2
St. Louis City			
Whites	179	5.6%	117.2
Blacks		72.2%	1,296.9
Other/Unknown		22.2%	
Total Cases	3,202	100.0%	919.6
St. Louis Count	.,		
Whites		12.2%	46.8
Blacks		67.1%	1,040.8
Other/Unknown		20.8%	1,040.6
Total Cases		100.0%	295.2
Total Cuses	0,000	100.0 /0	2>0.2
Kansas City			
Whites	514	17.5%	191.9
Blacks	1,809	61.5%	1,312.1
Other/Unknown	619	21.0%	
Total Cases	2,942	100.0%	666.5
Outstate			
Whites	4.416	62.8%	124.5
Blacks	,	16.3%	956.2
Other/Unknown		20.9%	
Total Cases	,	100.0%	185.7
Per 100,000 population			



# Summary of Reported Gonorrhea Cases by County Missouri, Five-Year Median (1998-2002), 2001, 2002

County	Five-Year Median	2001	2002	% Change 2001-2002	2002 Rate*	County	Five-Year Median	2001	2002	% Change 2001-2002	2002 Rate*
Adair	5	5	6	20.0%	24.0	Livingston	2	3	3	0.0%	20.6
Andrew	1	0	0	0.0%	0.0	Macon	6	3	6	100.0%	38.1
Atchison	0	0	0	0.0%	0.0	Madison	0	3	1	-66.7%	8.5
Audrain	18	11	18	63.6%	69.6	Maries	0	1	0	-100.0%	0.0
Barry	2	0	1	100.0%	2.9	Marion	20	<b>28</b>	41	46.4%	144.9
Barton	2	3	2	-33.3%	15.9	McDonald	3	3	1	-66.7%	4.6
Bates	1	3	1	-66.7%	6.0	Mercer	0	2	0	-100.0%	0.0
Benton	1	0	1	100.0%	5.8	Miller	1	1	1	0.0%	4.2
Bollinger	2	2	1	-50.0%	8.3	Mississippi	42	45	45	0.0%	335.1
Boone	232	141	191	35.5%	141.0	Moniteau	2	3	0	-100.0%	0.0
Buchanan	48	45	45	0.0%	52.3	Monroe	2	6	10	66.7%	107.4
Butler	27	<b>25</b>	55	120.0%	134.6	Montgomery	1	2	1	-50.0%	8.2
Caldwell	1	1	1	0.0%	11.1	Morgan	2	3	0	-100.0%	0.0
Callaway	29	21	43	104.8%	105.5	New Madrid	45	<b>28</b>	45	60.7%	227.7
Camden	5	6	3	-50.0%	8.1	Newton	10	10	18	80.0%	34.2
Cape Girardeau	105	105	93	-11.4%	135.4	Nodaway	2	3	2	-33.3%	9.1
Carroll	1	0	1	100.0%	9.7	Oregon	1	1	1	0.0%	9.7
Carter	1	1	1	0.0%	16.8	Osage	2	1	2		15.3
Cass	14	14	13	-7.1%	15.8	Ozark	0	0	0	0.0%	0.0
Cedar	1	3	1	-66.7%	7.3	Pemiscot	43	43	33	-23.3%	164.6
Chariton	1	0	1	100.0%	11.9	Perry	2	2	2		11.0
Christian	8	8	15	87.5%	27.6	Pettis	16	36	16	-55.6%	40.6
Clark	0	0	0	0.0%	0.0	Phelps	8	10	6	-40.0%	15.1
Clay**	35	30	55	83.3%	55.0	Pike	10	8	10		54.5
Clinton	2	4	2	-50.0%	10.5	Platte**	13	16	8		20.4
Cole	72	<b>55</b>	72	30.9%	100.8	Polk	4	2	7		25.9
Cooper	8	8	15	87.5%	90.0	Pulaski	41	41	45		109.3
Crawford	4	4	6	50.0%	26.3	Putnam	0	0	1		19.1
Dade	1	0	0	0.0%	0.0	Ralls	4	4	3		31.2
Dallas	1	1	2	100.0%	12.8	Randolph	10	24	24		97.3
Daviess	1	2	0	-100.0%	0.0	Ray	3	5	4		17.1
DeKalb	1	0	1	100.0%	8.6	Reynolds	0	1	0		0.0
Dent	2	1	3	200.0%	20.1	Ripley	0	0	0		0.0
Douglas	0	0	0	0.0%	0.0	Saline	14	9	14		58.9
Dunklin	29	29	10	-65.5%	30.2	Schuyler	0	0	1	100.0%	24.0
Franklin	16	23	27	17.4%	28.8	Scotland	0	0	0		0.0
Gasconade	1	0	3	300.0%	19.6	Scott	74	74	79	6.8%	195.4
Gentry	0	0	0	0.0%	0.0	Shannon	0	0	0		0.0
Greene	179	179	260	45.3%	108.2	Shelby	1	1	1		14.7
Grundy	0	5	1	-80.0%	9.6	St. Charles	67	78	95		33.5
Harrison	2	3	0	-100.0%	0.0	St. Clair	1	0	0		0.0
Henry	1	0	0	0.0%	0.0	St. Francois	19	24	29		52.1
Hickory	1	2	1	-50.0%	11.2	St. Louis City	2,879	3,185	2,737	-14.1%	786.1
Holt	0	0	1	100.0%	18.7	St. Louis	1,793	1,847	1,793		176.4
Howard	1	0	3	300.0%	29.4	Ste. Genevieve	1,700	1	2		11.2
Howell	2	2	4	100.0%	10.7	Stoddard	7	5	7		23.6
Iron	0	1	0	-100.0%	0.0	Stone	1	2	1	-50.0%	3.5
Jackson**	176	176	184	4.5%	55.4	Sullivan	1	1	0		0.0
Jasper	71	71	74	4.2%	70.7	Taney	11	13	11		27.7
Jefferson	28	45	51	13.3%	25.7	Texas	1	1	1		4.3
Johnson	29	25	30	20.0%	62.2	Vemon	4	4	6	0.070	29.3
Kansas City	2,375	2,024	2,486	22.8%	563.2	Warren	3	3	6		24.5
Knox	2,375 1	2,024	2,400	0.0%	0.0	Washington		8	5		21.4
Laclede	5	5	7	40.0%	21.5	Wayne	0	1	4		30.2
Lafayette	8	13	10	-23.1%	30.3	Webster	2	2	2		6.4
Lawrence	5	9	5	-23.1% -44.4%	14.2	Worth	0	0	0		0.4
	2	1	0		0.0		2	0			27.8
Lewis Lincoln	5	11	5	-100.0% -54.5%		Wright		U	3	500.0%	21.0
			6		12.8	Missouri	8,883	Q 722	8,952	2.6%	160.0
Linn	2	2	0	200.0%	43.6	IVIISSOUTI	0,003	8,723	6,932	2.0%	0.001

<sup>\*</sup>Per 100,000 Population. Note that when the number of cases is less than 5, the rate is considered unstable and should be interpreted with caution.

<sup>\*\*</sup>Outside the city limits of Kansas City.

# Summary of Reported P&S Syphilis Cases by County Missouri, Five-Year Median (1998-2002), 2001, 2002

County Adair	Median	2001	2002	2001-2002	Rate*	County	Median	2001	2002	% Change 2001-2002	2002 Rate
	0	0	0	0.0%	0.0	Livingston	0	0	0	0.0%	
Andrew	0	0	0	0.0%	0.0	Macon	0	0	0	0.0%	
Atchison	0	0	0	0.0%	0.0	Madison	0	0	0	0.0%	
Audrain	0	0	0	0.0%	0.0	Maries	0	0	0	0.0%	
Barry	0	0	0	0.0%	0.0	Marion	0	0	0	0.0%	
Barton	0	0	0	0.0%	0.0	McDonald	0	0	0	0.0%	
Bates	0	0	1	100.0%	6.0	Mercer	0	0	0	0.0%	
Benton	0	0	0	0.0%	0.0	Miller	0	0	0	0.0%	
Bollinger	0	0	0	0.0%	0.0	Mississippi	0	0	0	0.0%	
		1	0		0.0			0	0		
Boone	1			-100.0%		Moniteau	0		-	0.0%	
Buchanan	0	0	0	0.0%	0.0	Monroe	0	0	0	0.0%	
Butler	0	0	0	0.0%	0.0	Montgomery	0	0	0	0.0%	
Caldwell	0	0	0	0.0%	0.0	Morgan	0	0	0	0.0%	
Callaway	1	0	1	100.0%	2.5	New Madrid	0	0	0	0.0%	
Camden	0	0	0	0.0%	0.0	Newton	0	0	0	0.0%	
Cape Girardeau	0	0	1	100.0%	1.5	Nodaway	0	0	0	0.0%	
arroll	0	0	0	0.0%	0.0	Oregon	0	0	0	0.0%	
arter	0	0	0	0.0%	0.0	Osage	0	0	0	0.0%	
Cass	0	0	1	100.0%	1.2	Ozark	0	0	0	0.0%	
Cedar	0	0	0	0.0%	0.0	Pemiscot	0	0	0	0.0%	
hariton	0	0	0	0.0%	0.0	Perry	0	0	0	0.0%	
hristian	0	0	0	0.0%	0.0	Pettis	0	0	0	0.0%	
Clark	0	0	0	0.0%	0.0	Phelps	0	0	0	0.0%	
Clay**	0	1	0	-100.0%	0.0	Pike	0	0	0	0.0%	
Clinton	0	0	0	0.0%	0.0	Platte**	0	0	0	0.0%	
		0	0								
cole	0	_		0.0%	0.0	Polk	0	0	0	0.0%	
Cooper	0	0	0	0.0%	0.0	Pulaski	0	0	0	0.0%	
Crawford	0	0	0	0.0%	0.0	Putnam	0	0	0	0.0%	
Dade	0	0	0	0.0%	0.0	Ralls	0	0	0	0.0%	
allas	0	0	0	0.0%	0.0	Randolph	0	0	0	0.0%	
aviess	0	0	0	0.0%	0.0	Ray	0	0	0	0.0%	
)eKalb	0	0	0	0.0%	0.0	Reynolds	0	0	0	0.0%	
ent	0	0	0	0.0%	0.0	Ripley	0	0	0	0.0%	
Douglas	0	0	0	0.0%	0.0	Saline	0	0	0	0.0%	
Ounklin	0	0	0	0.0%	0.0	Schuyler	0	0	0	0.0%	
ranklin	0	0	0	0.0%	0.0	Scotland	0	0	0	0.0%	
Sasconade	0	0	0	0.0%	0.0	Scott	0	0	0	0.0%	
Sentry	0	0	0	0.0%	0.0	Shannon	0	0	0	0.0%	
Greene	0	0	0	0.0%	0.0	Shelby	0	0	0	0.0%	
Grundy	0	0	0	0.0%	0.0	St. Charles	1	0	0	0.0%	
	0	0	0	0.0%	0.0	St. Clair	0	0	0	0.0%	
larrison	0	0	0	0.0%	0.0	St. Francois	0	0	0	0.0%	
lenry	-	0	_				-	15			
lickory	0		0	0.0%	0.0	St. Louis City	15		13	-13.3%	
lolt	0	0	0	0.0%	0.0	St. Louis	12	1	7	600.0%	
loward	0	0	0	0.0%	0.0	Ste. Genevieve	0	0	0	0.0%	
lowell	0	1	0	-100.0%	0.0	Stoddard	0	0	1	100.0%	
on	0	0	0	0.0%	0.0	Stone	0	0	0	0.0%	
ackson**	0	1	1	0.0%	0.3	Sullivan	0	0	0	0.0%	
asper	0	1	1	0.0%	1.0	Taney	0	0	0	0.0%	
efferson	0	0	0	0.0%	0.0	Texas	0	0	0	0.0%	
ohnson	0	0	0	0.0%	0.0	Vernon	0	0	0	0.0%	
ansas City	6	5	7	40.0%	1.6	Warren	0	0	0	0.0%	
nox	0	0	0	0.0%	0.0	Washington	0	0	0	0.0%	
aclede	0	0	0	0.0%	0.0	Wayne	0	0	0	0.0%	
afavette	0	0	0	0.0%	0.0	Webster	0	0	0	0.0%	
awrence	0	0	0	0.0%	0.0	Worth	0	0	0	0.0%	
ewis incoln	0	0	0	0.0%	0.0	Wright	0	0	0	0.0%	
	0	0	0	0.0%	0.0					30.8%	

<sup>\*</sup>Per 100,000 Population. Note that when the number of cases is less than 5, the rate is considered unstable and should be interpreted with caution.

<sup>\*\*</sup>Outside the city limits of Kansas City.

# Summary of Reported Early Latent Syphilis Cases by County Missouri, Five-Year Median (1998-2002), 2001, 2002

County	Five-Year Median	2001	2002	% Change 2001-2002	2002 Rate*	County	Five-Year Median	2001	2002	% Change 2001-2002	200 Rate
Adair	0	0	0	0.0%	0.0	Livingston	0	0	0		
Andrew	0	0	0	0.0%	0.0	Macon	0	0	0		
Atchison	0	0	0	0.0%	0.0	Madison	0	0	0		
Audrain	0	0	0	0.0%	0.0	Maries	0	0	0		
Barry	0	0	1	100.0%	2.9	Marion	0	0	0	0.070	
Barton	0	0	0	0.0%	0.0	McDonald	0	0	0		
Bates	0	0	0	0.0%	0.0	Mercer	0	0	0		
Benton	0	0	0	0.0%	0.0	Miller	0	0	0		
	-		_				-			0.070	
Bollinger	0	1	0	-100.0%	0.0	Mississippi	0	0	0		
Boone	1	0	3	300.0%	2.2	Moniteau	0	0	0		
Buchanan	0	0	1	100.0%	1.2	Monroe	0	0	0		
utler	1	1	1	0.0%	2.4	Montgomery	0	0	0	0.070	
aldwell	0	0	0	0.0%	0.0	Morgan	0	0	0		
Callaway	1	0	0	0.0%	0.0	New Madrid	2	2	0	-100.0%	
amden	0	0	0	0.0%	0.0	Newton	0	0	0	0.0%	
ape Girardeau	0	0	0	0.0%	0.0	Nodaway	0	0	0	0.0%	
arroll	0	0	0	0.0%	0.0	Oregon	0	0	0	0.0%	
arter	0	0	0	0.0%	0.0	Osage	0	0	0	0.0%	
ass	0	0	1	100.0%	1.2	Ozark	0	0	0		
Cedar	0	0	0	0.0%	0.0	Pemiscot	1	2	0		
hariton	0	0	0	0.0%	0.0	Perry	0	0	0		
hristian	0	0	0	0.0%	0.0	Pettis	0	0	0		
lark	0	0	0	0.0%	0.0	Phelps	0	0	0		
lay**	1	0	0	0.0%	0.0	Pike	0	0	0		
•		_	_				-	_		0.070	
linton	0	0	0	0.0%	0.0	Platte**	0	0	0		
ole	0	0	0	0.0%	0.0	Polk	0	0	0		
cooper	0	0	0	0.0%	0.0	Pulaski	0	0	0		
crawford	0	0	0	0.0%	0.0	Putnam	0	0	0	0.070	
ade	0	0	0	0.0%	0.0	Ralls	0	0	0		
allas	0	0	0	0.0%	0.0	Randolph	0	0	0	0.0%	
aviess	0	0	0	0.0%	0.0	Ray	0	0	0	0.0%	
eKalb	0	0	0	0.0%	0.0	Reynolds	0	0	0	0.0%	
ent	0	0	0	0.0%	0.0	Ripley	0	0	0	0.0%	
ouglas	0	0	0	0.0%	0.0	Saline	0	0	0	0.0%	
unklin	0	0	0	0.0%	0.0	Schuyler	0	0	0	0.0%	
ranklin	0	0	0	0.0%	0.0	Scotland	0	0	0		
asconade	0	0	0	0.0%	0.0	Scott	3	3	1	0.070	
Sentry	0	0	0	0.0%	0.0	Shannon	0	0	0		
Greene	0	0	0	0.0%	0.0	Shelby	0	0	0	0.070	
		0	0		0.0	·	0	1	0		
Grundy	0			0.0%		St. Charles	-				
arrison	0	0	0	0.0%	0.0	St. Clair	0	0	0		
lenry	0	0	0	0.0%	0.0	St. François	0	0	0	0.070	
lickory	0	0	0	0.0%	0.0	St. Louis City	23	15	23		
lolt	0	0	0	0.0%	0.0	St. Louis	13	6	13		
oward	0	0	0	0.0%	0.0	Ste. Genevieve		0	0		
owell	0	0	0	0.0%	0.0	Stoddard	0	0	0	0.070	
on	0	0	0	0.0%	0.0	Stone	0	0	0		
ackson**	0	0	0	0.0%	0.0	Sullivan	0	0	0	0.0%	
asper	0	0	0	0.0%	0.0	Taney	0	0	0	0.0%	
efferson	0	0	0	0.0%	0.0	Texas	0	0	0		
hnson	0	0	0	0.0%	0.0	Vernon	0	0	0	0.070	
ansas Citv	6	2	7	250.0%	1.6	Warren	0	0	Ö		
nox	0	0	0	0.0%	0.0	Washington	0	0	0	0.070	
aclede	0	0	0	0.0%	0.0	Wayne	0	0	0		
						•				0.070	
afayette	0	0	0	0.0%	0.0	Webster	0	0	0		
awrence	0	0	0	0.0%	0.0	Worth	0	0	0	0.070	
ewis	0	0	0	0.0%	0.0	Wright	0	0	0	0.0%	
incoln	0	0	0	0.0%	0.0						
Linn	0	0	0	0.0%	0.0	Missouri	52	33	51	54.5%	

<sup>\*</sup>Per 100,000 Population. Note that when the number of cases is less than 5, the rate is considered unstable and should be interpreted with caution.

 $<sup>\</sup>ensuremath{^{**}}\xspace$  Outside the city limits of Kansas City.

# Summary of Reported Chlamydia Cases by County Missouri, Five-Year Median (1998-2002), 2001, 2002

County	Five-Year Median	2001	2002	% Change 2001-2002	2002 Rate*	County	Five-Year Median	2001	2002	% Change 2001-2002	2002 Rate*
Adair	31	45	27	-40.0%	108.1	Livingston	18	16	28	75.0%	192
Andrew	8	5	10	100.0%	60.6	Macon	23	18	23	27.8%	145
Atchison	1	0	1	100.0%	15.6	Madison	5	7	2	-71.4%	16
Audrain	52	<b>52</b>	62	19.2%	239.8	Maries	3	5	3		33
Barry	47	28	51	82.1%	150.0	Marion	56	56	99		350
Barton	11	14	4	-71.4%	31.9	McDonald	29	22	36		166
Bates	13	15	15	0.0%	90.1	Mercer	2	2	2		53
Benton	11	8	21	162.5%	122.2	Miller	23	26	50		212
Bollinger	6	3	6	100.0%	49.9	Mississippi	45	37	58	56.8%	432
	406	406	454	11.8%	335.2		8	8	14		94
Boone Buchanan	241	233	297	27.5%	345.4	Moniteau	9	11	21	90.9%	22
						Monroe					
Butler	96	100	125	25.0%	305.9	Montgomery	7	10	6		4
Caldwell	6	4	11	175.0%	122.6	Morgan	15	19	15		7
Callaway	65	<b>85</b>	100	17.6%	245.3	New Madrid	61	<b>61</b>	72		36
Camden	39	23	40	73.9%	108.0	Newton	54	54	58		110
Cape Girardeau	189	189	164	-13.2%	238.7	Nodaway	34	27	42	55.6%	19 <sup>-</sup>
Carroll	10	7	10	42.9%	97.2	Oregon	5	4	7	75.0%	6
Carter	2	4	2	-50.0%	33.7	Osage	6	13	10	-23.1%	7
Cass	60	71	94	32.4%	114.5	Ozark	6	6	5		5
Cedar	15	8	16	100.0%	116.5	Pemiscot	116	102	157		78
Chariton	6	2	4	100.0%	47.4	Perry	13	11	23		12
Christian	72	73	95	30.1%	175.0	Pettis	81	81	98		24
Clark	6	4	2	-50.0%	27.0	Phelps	50	77	64	-16.9%	16
Clay**	141	199	188	-5.5%	188.0	Pike	28	18	38		20
							-				
Clinton	14	18	20	11.1%	105.4	Platte**	49	51	49		12
Cole	172	175	235	34.3%	329.1	Polk	23	33	41	24.2%	15
Cooper	26	25	29	16.0%	174.0	Pulaski	157	162	193	19.1%	46
Crawford	20	<b>38</b>	34	-10.5%	149.1	Putnam	4	2	4		7
Dade	4	4	3	-25.0%	37.9	Ralls	7	7	18	157.1%	18
Dallas	10	9	11	22.2%	70.2	Randolph	47	31	50	61.3%	20
Daviess	8	15	8	-46.7%	99.8	Ray	13	23	39	69.6%	16
DeKalb	6	6	6	0.0%	51.7	Reynolds	2	3	1	-66.7%	1.
Dent	14	16	13	-18.8%	87.1	Ripley	3	6	0	-100.0%	
Douglas	8	17	9	-47.1%	68.8	Saline	37	37	35		14
Dunklin	75	75	55	-26.7%	165.9	Schuyler	2	3	4		9
Franklin	75	83	80	-3.6%	85.3	Scotland	3	4	3		6
Gasconade	5	7	5	-28.6%	32.6	Scott	98	136	129	-5.1%	31
Gentry	4	9	4	-55.6%	58.3	Shannon	2	2	4		4
		593	-		279.5			7			2
Greene	569		672	13.3%		Shelby	5		2		
Grundy	14	21	21	0.0%	201.3	St. Charles	264	264	415		140
Harrison	10	9	13	44.4%	146.9	St. Clair	6	7	4		4
Henry	14	11	23	109.1%	104.6	St. Francois	83	72	101	40.3%	18
Hickory	6	10	9	-10.0%	100.7	St. Louis City	3,090	3,195	3,202	0.2%	919
Holt	4	0	6	600.0%	112.1	St. Louis	2,560	2,560	3,000	17.2%	29
Howard	17	17	19	11.8%	186.1	Ste. Genevieve	7	7	10		5
Howell	35	35	59	68.6%	158.4	Stoddard	25	51	38	-25.5%	12
Iron	5	3	8	166.7%	74.8	Stone	20	18	22	22.2%	7
Jackson**	492	508	572	12.6%	172.3	Sullivan	10	10	9		12
Jasper	237	237	308	30.0%	294.2	Taney	48	53	74		18
Jefferson	132	140	236	68.6%	119.1	Texas	12	18	12		5
Johnson	138	140	188	34.3%	389.6	Vernon	33	33	43		21
Kansas City	2,618	2,367	2,942	24.3%	666.5	Warren	17	17	20		8
		2,367	2,942		0.0			21	40		- 0 17
Knox	2			0.0%		Washington	27				
Laclede	52	62	61	-1.6%	187.6	Wayne	5	7	5		3
Lafayette	42	51	53	3.9%	160.8	Webster	33	33	35		11
Lawrence	47	31	59	90.3%	167.6	Worth	1	1	2		8
Lewis	8	8	4	-50.0%	38.1	Wright	24	24	16	-33.3%	8
Lincoln	26	27	45	66.7%	115.6						
Linn	14	15	21	40.0%	152.7	Missouri	13,450	13,949	16,181	16.0%	289

<sup>\*</sup>Per 100,000 Population. Note that when the number of cases is less than 5, the rate is considered unstable and should be interpreted with caution.
\*\*Outside the city limits of Kansas City.

# 2000 Missouri Behavioral Risk Factor Surveillance System (BRFSS): Results From Selected HIV/AIDS-Related Questions

The Missouri Behavioral Risk Factor Surveillance System (BRFSS) is a population-based, random-digit—dialed telephone survey of the state's civilian, noninstitutionalized adult population 18 years of age and older. Interviewers ask questions related to health behaviors, screening, quality of life, mental health, impairment, and access to health care and insurance. The results are weighted by demographic characteristics and by selection probability, and are used in planning, implementing, and evaluating health promotion and disease prevention programs.

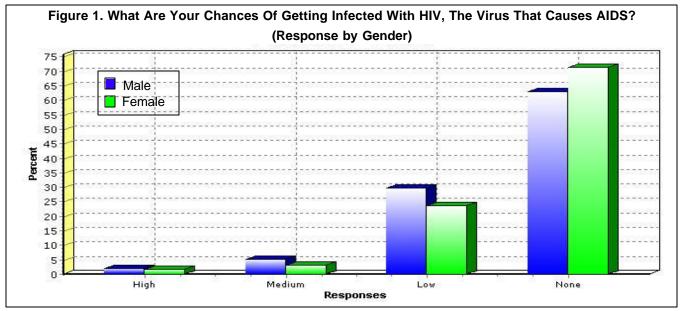
For the participants 18-64 years of age, the interview included questions regarding HIV/AIDS-related knowledge and attitudes, and HIV testing history. The results are summarized on the following pages.

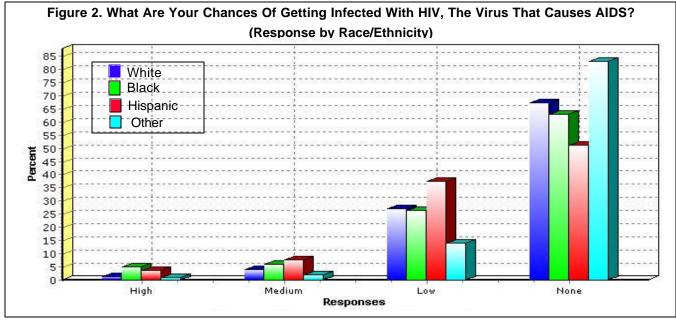
In 2000, the Missouri BRFSS participants 18-64 years of age were asked: **What are your chances of getting infected with HIV**, **the virus that causes AIDS?**" The responses are shown in Figures 1-5. The height of each individual bar corresponds to the percentage of respondents in that particular category who gave the indicated response to the question.

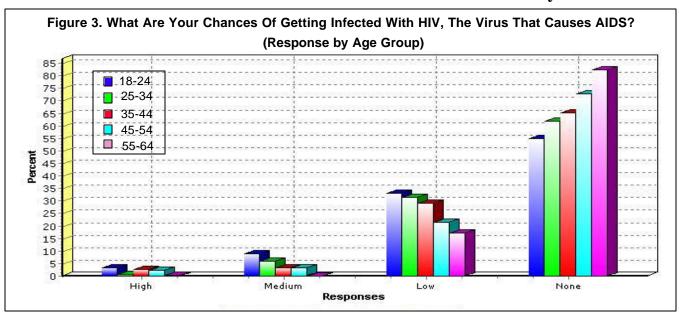
Most respondents (94%) believe their chances of becoming infected with HIV are low or none. Only 2% believe their chances of becoming infected are high, and another 4% believe their chances of infection are medium. Females are slightly more likely than males (71% vs. 63%) to indicate they have no chances of becoming infected. Blacks are slightly more likely than Hispanics or white non-Hispanics (5%, vs. 4% and 2%, respectively) to state that their chances of becoming infected with HIV are high.

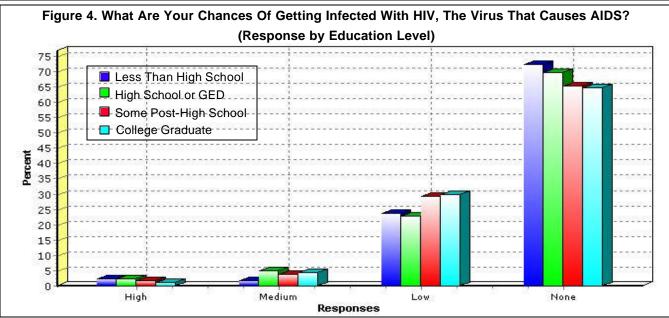
In general, persons in younger age groups are more likely to perceive themselves at relatively higher risk than those in older age groups, although only 3% of those in the youngest age group (18-24 years old) indicate that they are at high risk of infection.

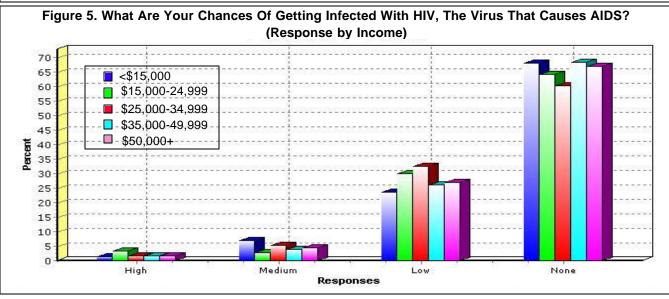
Persons who have not graduated from high school (or obtained a GED) are slightly more likely than those with more education (72% vs. 65%) to indicate they have no chances of becoming infected









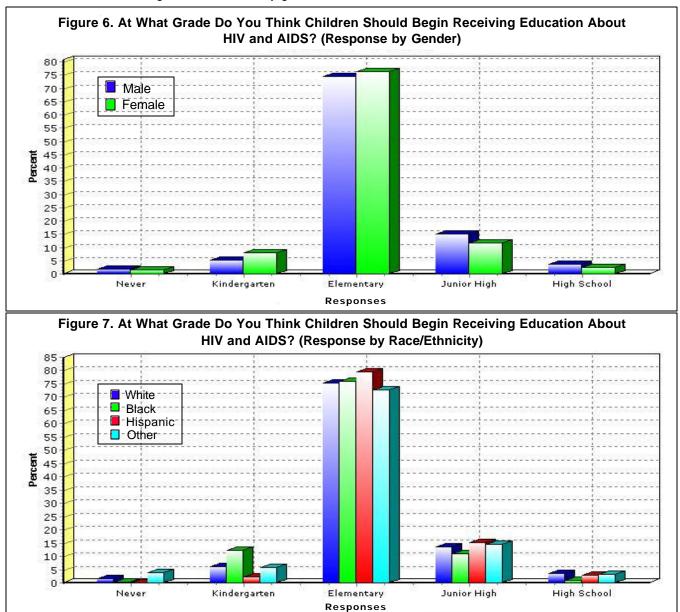


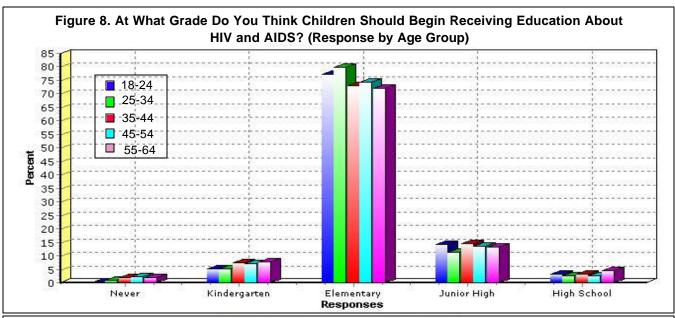
The Missouri BRFSS participants 18-64 years of age were asked: "At what grade do you think children should begin receiving education about HIV and AIDS?" The responses are shown in Figures 6-10. The height of each individual bar corresponds to the percentage of respondents in that particular category who gave the indicated response to the question.

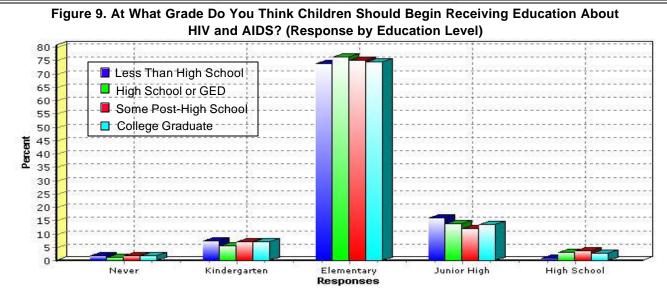
Seventy-five percent (75%) of respondents indicated that HIV/AIDS education should begin in the elementary grades; 7% said such education should begin in kindergarten, and 13% stated it should begin in junior high. Only 2% indicated that HIV/AIDS education should not be conducted in a school setting.

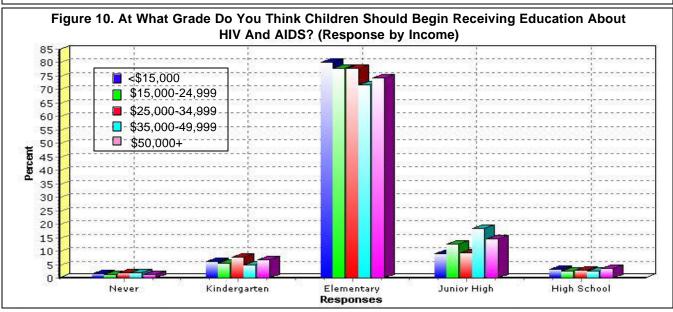
Blacks were more likely than white non-Hispanics and Hispanics (12% vs. 6% and 2%, respectively) to indicate that HIV/AIDS education should begin in kindergarten. No Hispanic respondent indicated that such education should not take place in a school setting.

Among respondents in each racial/ethnic group, as well as for those in each age group, educational level, and income level, only 2% (or less) stated that HIV/AIDS education should not be conducted in a school setting. Also, regardless of racial/ethnic or age group, and educational or income level, the largest proportion of respondents indicated that HIV/AIDS education should begin in the elementary grades.





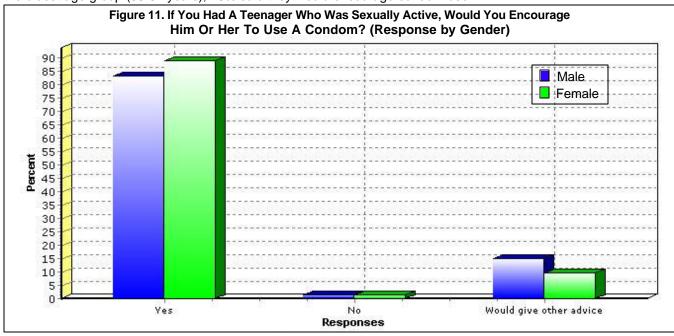


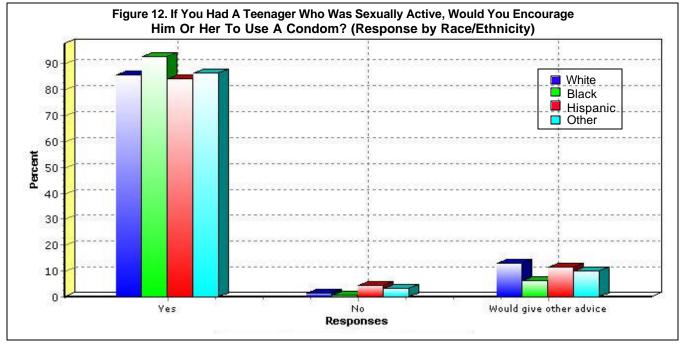


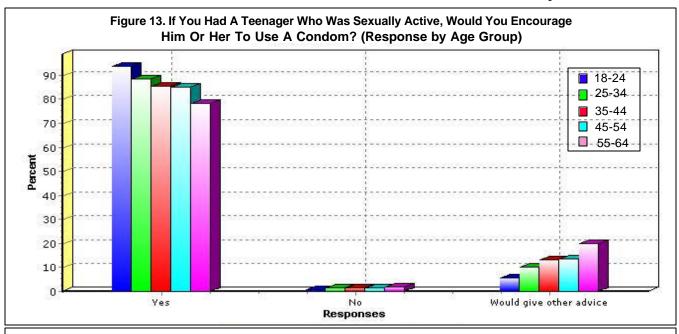
The Missouri BRFSS participants 18-64 years of age were asked: "If you had a teenager who was sexually active, would you encourage him or her to use a condom?" The responses are shown in Figures 11-15. The height of each individual bar corresponds to the percentage of respondents in that particular category who gave the indicated response to the question.

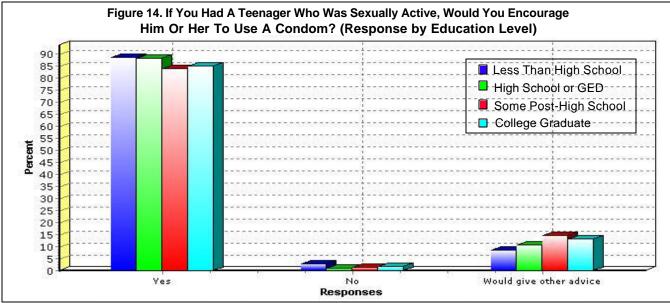
Most respondents (86%) indicated they would encourage their sexually active teenager to use a condom. Fewer than 1% of respondents answered no to the question, and 12% stated they would give other advice besides condom use. Females were more likely than males (89% vs. 83%) to advise use of a condom.

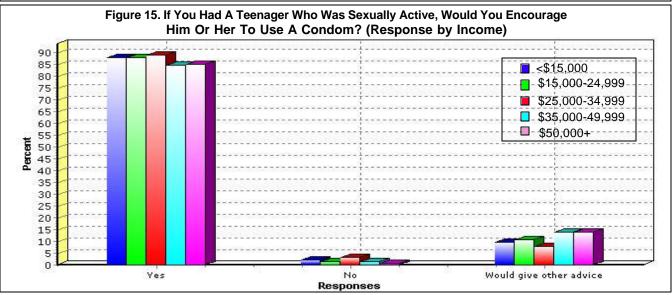
White non-Hispanics were more likely to indicate they would give other advice than were blacks or Hispanics (13% vs. 6% and 11%, respectively). In addition, it appeared that generally the more educated, wealthier, and older the respondent, the more likely he or she would chose to give the teenager other advice instead of condom use. However, even among the oldest age group (55-64 years), 78% said they would encourage condom use.







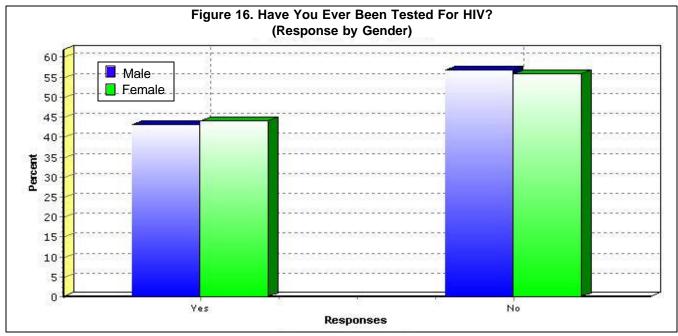


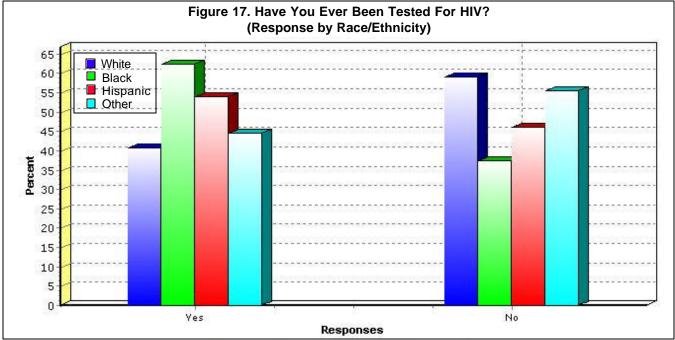


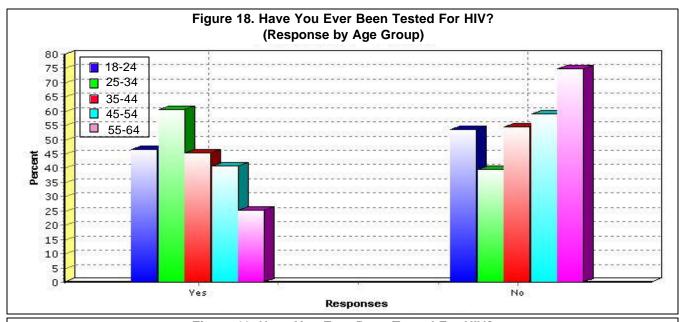
The Missouri BRFSS participants 18-64 years of age were asked 'Have you ever been tested for HIV?" The responses are shown in Figures 16-20. The height of each individual bar corresponds to the percentage of respondents in that particular category who gave the indicated response to the question.

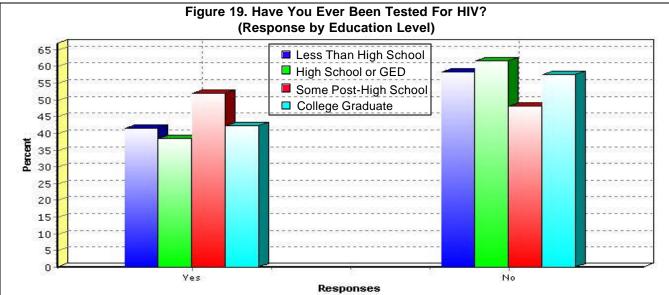
Forty-four percent of respondents, almost equally for males (43%) and females (44%) indicated they had been tested for HIV. Blacks were noticeably more likely than Hispanics or white non-Hispanics (62% vs. 54% and 41%, respectively) to have been tested.

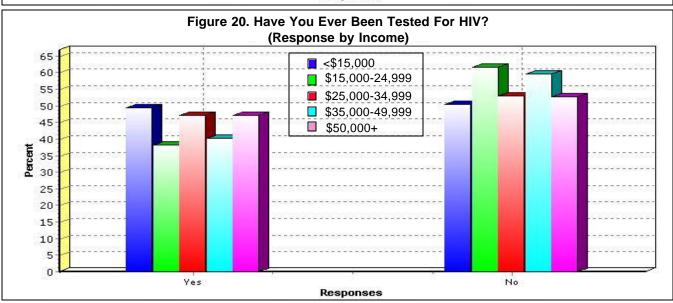
Respondents in the 25-34 year age group were most likely to have been tested (60% vs. 47% for respondents 18-24 years of age, the age group with the next highest proportion who had been tested). Respondents in the oldest age group (55-64 years) were least likely to have been tested (only 25% reported having had an HIV test).





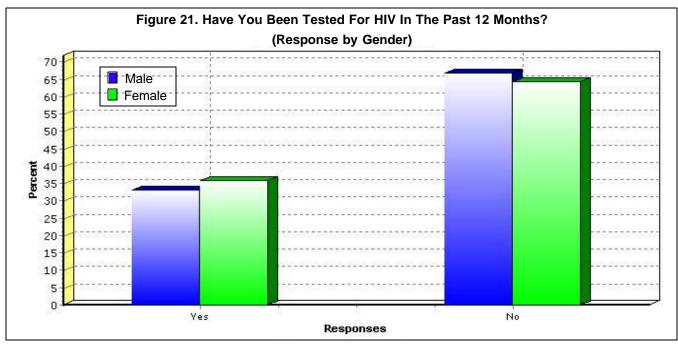


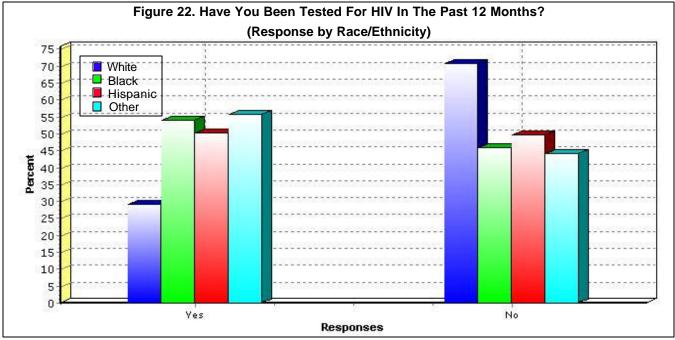


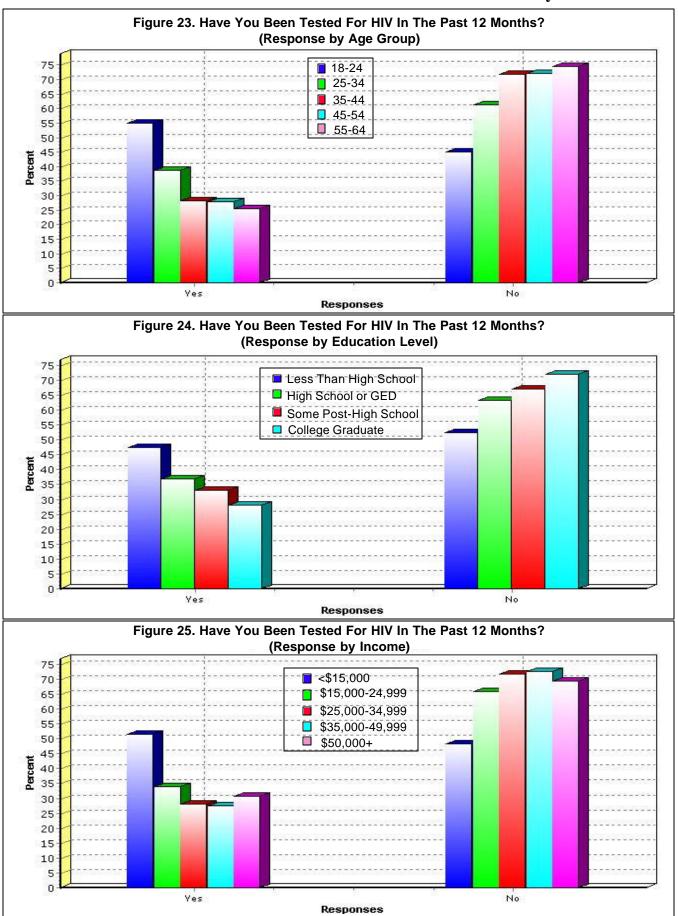


The respondents who indicated that they had been tested for HIV were then asked "Have you been tested for HIV in the past 12 months?" The responses are shown in Figures 21-25. The height of each individual bar corresponds to the percentage of respondents in that particular category who gave the indicated response to the question.

Only about 35% of respondents who had been tested for HIV indicated they had been tested in the past 12 months. Blacks were more likely than Hispanics or white non-Hispanics (54% vs. 50% and 29%, respectively) to have been tested during this period. Also, individuals in the youngest age group (18-24 years), those without a high school diploma or GED, and those with the lowest income level (<\$15,000) were more likely to have been tested; of respondents in these categories, 55%, 47%, and 52%, respectively, reported having an HIV test in the past 12 months.

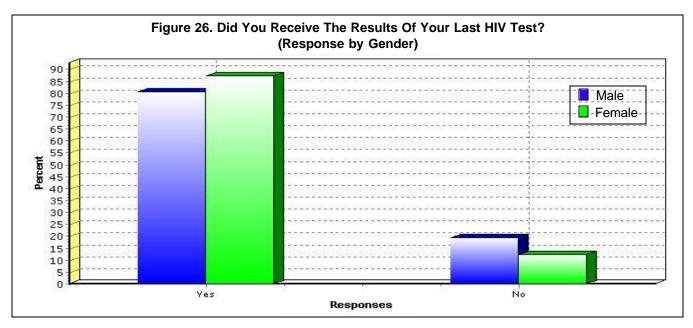


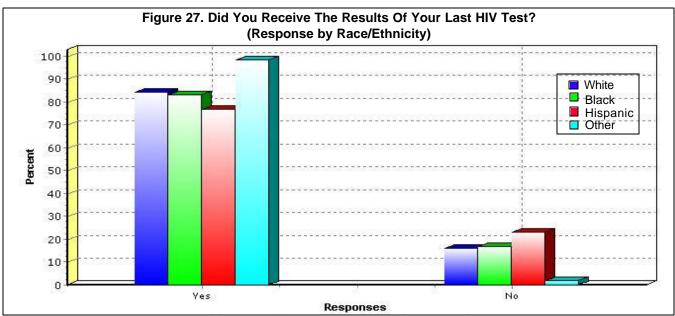


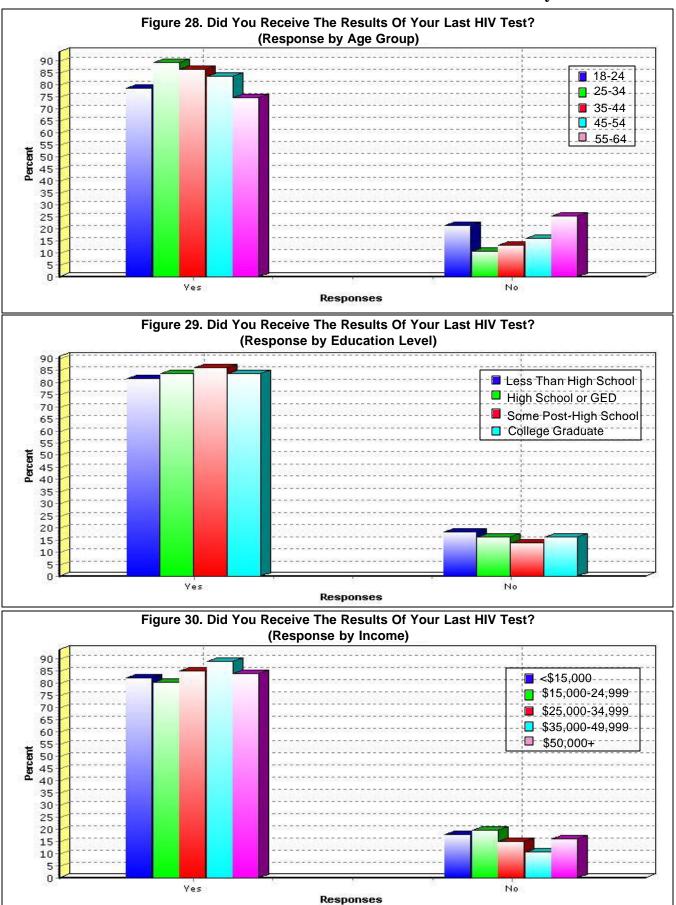


The participants who indicated that they had been tested for HIV were asked "Did you receive the results of your last HIV test?" The responses are shown in Figures 26-30. The height of each individual bar corresponds to the percentage of respondents in that particular category who gave the indicated response to the question.

Although 84% of the respondents went back to get their test results, 16% did not. This indicates that about one out of every six who were tested for HIV (for whatever reason) do not go back to get their results. Females (88%) were more likely than males (81%) to receive their HIV test results. Blacks and non-Hispanic whites were more likely (83% and 84% respectively) to get their results, compared to 77% of Hispanics. In general, the youngest age group (18-24) and those having less than a high school education were the most likely not to go back to receive their test results (21% and 18% respectively).



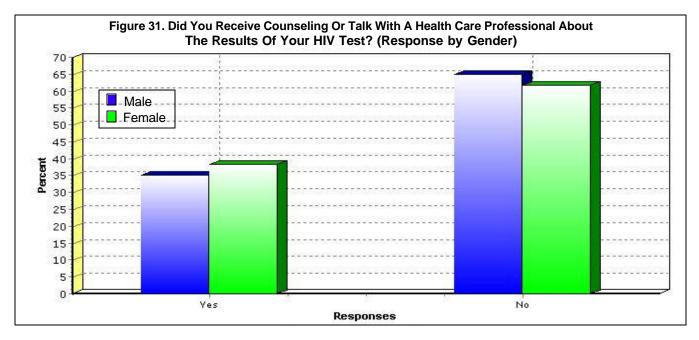


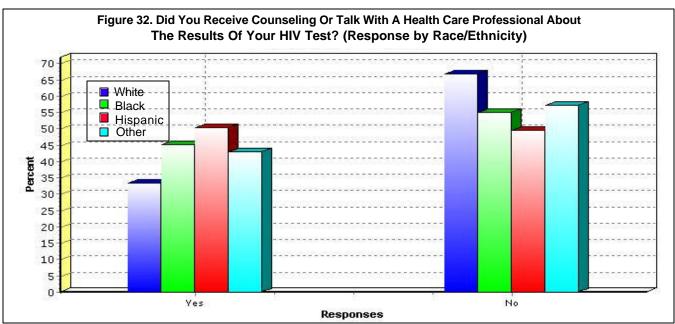


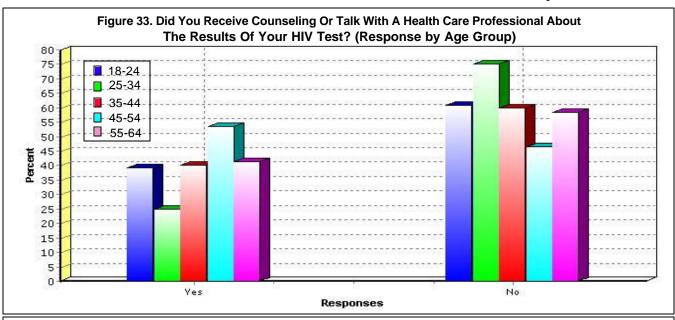
The 397 respondents who indicated that they received their HIV test results were then asked "Did you receive counseling or talk with a health care professional about the results of your HIV test?"

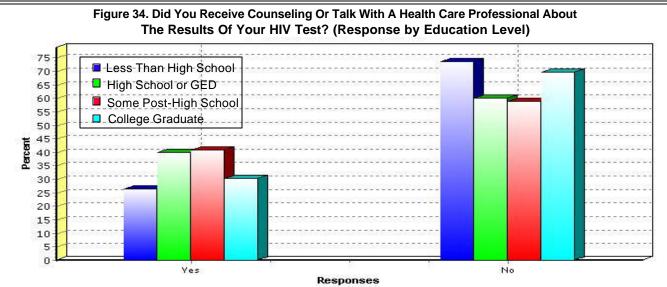
Nearly 63% of the respondents indicated that they did not receive counseling about their results. There is no noticable difference among males vs. females. Non-Hispanic whites were the least likely to have received counseling, fewer than blacks and Hispanics (33% vs. 45%, and 50% respectively).

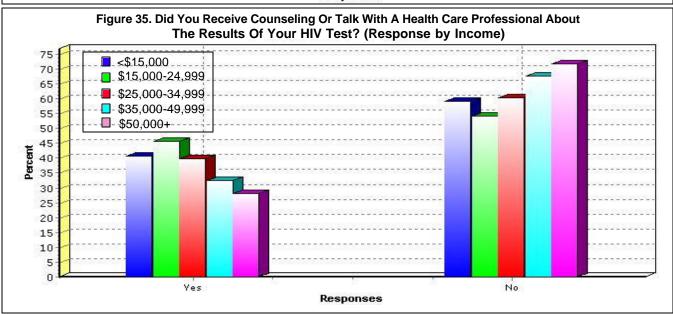
Seventy-five percent of respondents ages 25-34 years, and 74% of respondents having less than a high school education did not receive any counseling. Interestingly, the wealthier the respondents were, less likely were they to have received counseling about their results (75% in the \$50,000+ income group vs. 59% of those earning less than \$15,000 per year did not receive counseling).











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# 1999 Missouri Youth Risk Behavior Survey

### Missouri Department of Elementary and Secondary Education

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February 2000

A full copy of this survey can be found at http://www.dese.state.mo.us/divimprove/curriculum/hiveducation/survey1999.pdf.

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## 1999 Youth Risk Behavior Study: Missouri

Figure 24. Percentage of high school students who ever had sexual intercourse, by grade—Missouri and United States, 1995, 1997, 1999<sup>5,6,7</sup>

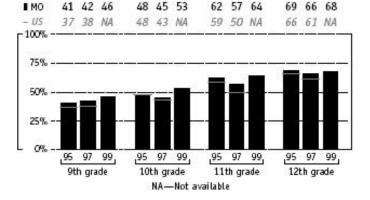


Figure 26. Percentage of high school students who had sexual intercourse with one or more people during the past three months, by grade—Missouri and United States, 1995, 1997, 1999<sup>5,6,7</sup>

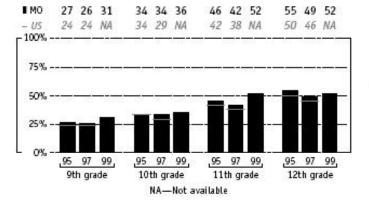


Figure 23. Percentage of high school students who ever had sexual intercourse, by gender—Missouri and United States, 1995, 1997, 1999<sup>5,6,7</sup>

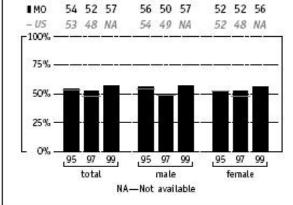


Figure 25. Percentage of high school students who had sexual intercourse with one or more people during the past three months, by gender—Missouri and United States, 1995, 1997, 1999<sup>5,6,7</sup>

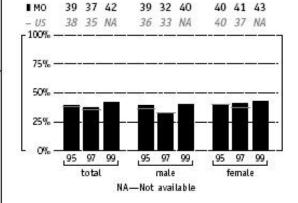
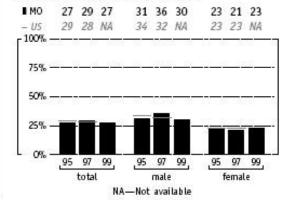


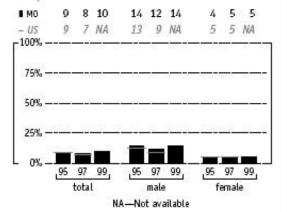
Figure 27. Percentage of high school students who had sexual intercourse, but not during the three months preceding the survey, by gender—Missouri and United States, 1995, 1997, 1999<sup>5,6,7</sup>



# Sexual behavior

The percentage of Missouri high school students who had ever had sex and the percentage who were currently sexually active both rose, after decreasing somewhat in 1997 (Figures 23,24,25,26). The percentage of students who had had intercourse in the past but were not currently sexually active was the same as in 1995 (Figure 27). Ten percent of students reported intercourse before age 13, indicating the need to focus prevention efforts at younger ages (Figure 28). Twenty percent of Missouri high school students reported more than four lifetime partners, a finding of great concern given the incidence of sexually transmitted diseases among teens.

Figure 28. Percentage of high school students who had sexual intercourse for the first time before age 13, by gender—Missouri and United States, 1995, 1997, 1999<sup>5,6,7</sup>





## 1999 Youth Risk Behavior Study: Missouri

Figure 29. Percentage of high school students<sup>1</sup> who used a condom during last sexual intercourse—Missouri and United States, 1995, 1997, 1999<sup>5,6,7</sup>

for those who had sexual intercourse during the three months preceding the survey

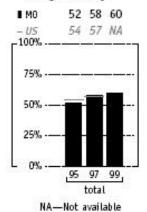
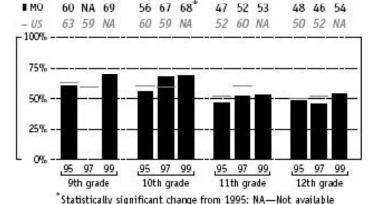


Figure 30. Percentage of high school students<sup>†</sup> who used a condom during last sexual intercourse, by grade—Missouri and United States, 1995, 1997, 1999<sup>5,6,7</sup>

for those who had sexual intercourse during the three months preceding the survey



The percentage of sexually active students who used condoms increased from 1995 to 1999, but continued to be lower among twelfth grade students than ninth grade students, presumably because older students have access to other contraceptives or do not appreciate the value of condoms in preventing sexually transmitted diseases (Figures 29,30). When used consistently and correctly, latex condoms are highly effective at reducing the risk of HIV infection and other sexually transmitted diseases.<sup>20</sup>

Early and unprotected sexual intercourse may result in unintended pregnancy and sexually transmitted disease. Pregnancies that occur during adolescence place both mothers and infants at risk for lifelong social and economic disadvantages. Two-thirds of teen mothers do not graduate from high school, and the children of teen mothers are more likely to have lower birth weights and more likely to perform poorly in school. 1,32

Despite declines in teen pregnancy, abortion, and birth rates in Missouri, <sup>23</sup> serious problems remain. In Missouri during 1998, there were 4,619 pregnancies to females under the age of 18.<sup>23</sup> There were 3,479 births to females ages 15 – 17, and 137 births to females under the age of 15.<sup>23</sup> More reported cases of chlamydia occur among adolescent females than any other group. In 1998, 3,497 cases were reported among Missouri females ages 15 – 19, accounting for 28 percent of total cases.<sup>24</sup> Through 1998, 40 percent of cumulative reported HIV cases in Missouri occurred among 20- to 29-year-olds, indicating that many infections occur among teenagers.<sup>25</sup>

# **SECTION 2**

# RYAN WHITE HIV/AIDS CARE ACT SPECIAL QUESTIONS AND CONSIDERATIONS

Question 1: What are the HIV Service Utilization Patterns of Individuals with HIV Disease in Missouri?

Question 2: What are the Number and Characteristics of the Individuals who Know They are HIV Positive but who are not in Care?

Question 1:
What are the HIV Service Utilization Patterns of Individuals with HIV Disease in Missouri?

## **Background**

HIV often leads to poverty due to costly health care or an inability to work that is often accompanied by a loss of employer-related health insurance. The Ryan White Comprehensive AIDS Resources Emergency (CARE) Act is Federal legislation that addresses the unmet health needs of persons living with HIV disease (PLWH) by funding case management, health care and support services. First enacted by Congress in 1990, it was amended and reauthorized in 1996 and again in 2000. The Ryan White CARE Act has provided discretionary funding for eligible metropolitan areas, (Title I), states (Title II), and other community-based grantees (Title III and IV) to offer health care and support services for individuals living with HIV Disease and who lack health insurance and/or financial resources for their own care. Though Ryan White CARE Act funded programs are critical to people with no source of health care insurance, other state and federal health insurance entitlement programs (Medicaid, Medicare, VA) provide the majority of funding for HIV care and treatment. Thus, Ryan White-funded programs fill gaps in care and are the "payer of last resort" for services not covered by these other resources.

In Missouri, there are at least 10 distinct entities directly receiving Ryan White funds through the various Titles for the provision of services. Included are the two Title I cities of St. Louis and Kansas City, the single Title II recipient which is the Missouri Department of Health and Senior Services, four community-based organizations that receive Title III funds, two Title IV funded agencies, and the University of Missouri-Kansas City Dental School that receives funding under Part F. Though Missouri has developed an effective partnership across all titles in which to create a seamless network of access to services for PLWH, there are some differences in the services available from each Ryan White funded entity and other non-Ryan White sources. Also, there is no single Missouri entity which has developed and implemented a statewide system to collect, report and disseminate information regarding service utilization patterns for all reported PLWH from all payor sources including Ryan White and others.

## What are the HIV service utilization patterns of reported PLWH?

Because of the variety of service access points and payor sources, the measurement of service utilization patterns of all reported PLWH residing in Missouri is problematic. Case management can be used as a measurement for patterns of service utilization. In Missouri, the provision of Ryan White funded case management services is available statewide and PLWH who have the need to access health care, treatments and supportive services through Ryan White funds are required to be enrolled in HIV case management.

During 2002, forty-two percent (3,903) of reported PLWH were enrolled in the statewide HIV case management program. Based on race, Ryan White clients were similar when compared to all PLWH cases reported to the Missouri Department of Health and Senior Services, Office of Surveillance in 2002.

<b>3</b> 1	S	ents compared to currently living f Missouri at the time of diagnosis
and rep	orted through 2002 by g	ender, race/ethnicity.
	Ryan White Clients, %	Persons living with HIV-Diagnosis, %
	(N=3,903)	(N=8,918)
Race/Ethnicity		
White, non-Hispanic	54.1%	56.1%
Black, non-Hispanic	42.1%	40.6%
Hispanic	2.8%	2.4%
Other/Unknown	0.9%	0.9%

Also, each Ryan White funded entity submits an Annual Administrative Report (AAR) to the U.S. Department of Health and Human Services each calendar year as part of their grant requirements. The most recent reports available are for calendar year 2001. They provide additional information on service utilization patterns. See pages 251-261.

Improved collaboration to increase data sharing capacity among the other payer sources such as Medicaid can provide more information of patterns of service utilization.

Question 2:
What are the Number and Characteristics of the Individuals who Know They are HIV Positive but who are not in Care?

# What are the number and characteristics of persons who know they are HIV-positive but who are not receiving HIV primary medical care?

CD4 cell count is a standard laboratory test to determine the stage of HIV Disease, formulate the differential diagnosis and to make therapeutic decisions regarding antiviral treatment and prophylaxis for opportunistic pathogens. It is also a relatively reliable indicator of HIV disease prognosis.

Due to mandatory reporting of CD4 cell counts to the Missouri Department of Health and Senior Services, the data captures information regarding primary medical care for all PWLH through private insurance, Medicare, Medicaid or Ryan White.

Though limitations include delayed or unreported CD4 counts, all Ryan White and Prevention grantees have agreed that these data should be used to measure patterns of service utilization of health care and treatments for PLWH. CD4 count reported during the twelve month period ending December 31, 2002 indicates the number of PLWH receiving or not receiving HIV primary care by either the presence or the absence of this laboratory test.

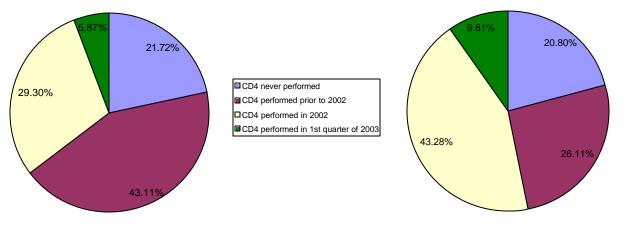
	ntly receiving care during the	eiving primary care compared 12-month period ending in
	December 31, 2002	DI WILL A
	PLWH not currently receiving	PLWH currently receiving
	primary care, % (N=6,609)	primary care, % (N= 2,805)
Race/Ethnicity		
White, non-Hispanic	57.4%	54.7%
Black, non-Hispanic	38.7%	41.9%
Hispanic	2.5%	2.7%
Other/Unknown	1.2%	0.7%

Twenty-nine percent had a CD4 count reported in 2002. Overall, seventy-eight percent of all reported PLWH have had at least one reported CD4 count. See Figure 1.

In contrast, forty-three percent of PLWH enrolled in case management had a recorded CD4 count in calendar year 2002. See Figure 2.

Figure 1. Reported CD4s in all PLWH

Figure 2. Reported CD4s in case managed clients



The following series of tables (3-7) and graphs (Figures 3-14) provide information on all persons living with HIV Disease compared to those clients enrolled in case management. Information includes regional and statewide comparison of CD4 cell counts and progression from HIV to AIDS.

Table 3. The Impact of HIV Case Management on Access to Care by Region and Race/Ethnicity as Indicated by Most Recent CD4+ T-Lymphocyte Count Reported During the 12-Month Period Ending December 31, 2002\*\*

Region		Total	HIV Popu	ulation		E	nrolled i	n Case N	<mark>/lanagen</mark>	nent	No	t Enrolle	d in Case	Manage	ement
	<50	50-199		>500	No	<50	50-199	200-500	>500	No	<50	50-199		>500	No
	cells/µ	cells/	200-500	cells/	Reported	cells/µ	cells/	cells/	cells/	Reported	cells/µ	cells/	200-500	cells/	Reported
	L	μL	cells/ µL	μL	CD4	L	μL	μL	μL	CD4	L	μL	cells/ µL	μL	CD4
St. Louis	Region														
White	1.4%	7.5%	9.7%	9.4%	72.0%	2.1%	11.4%	14.2%	13.1%	59.2%	1.0%	5.3%	7.2%	7.3%	79.3%
Black	3.4%	8.4%	10.4%	8.5%	69.3%	5.0%	11.7%	17.3%	14.0%	52.0%	2.1%	5.7%	4.7%	3.9%	83.7%
Hispanic	3.0%	6.0%	11.9%	7.5%	71.6%	5.9%	2.9%	17.6%	11.8%	61.8%	0.0%	9.1%	6.1%	3.0%	81.8%
Other/Unk.	0.0%	0.0%	11.4%	2.9%	85.7%	0.0%	0.0%	20.0%	0.0%	80.0%	0.0%	0.0%	8.0%	4.0%	88.0%
Total	2.4%	7.9%	10.1%	8.9%	70.7%	3.8%	11.4%	16.0%	13.5%	55.3%	1.5%	5.5%	6.0%	5.6%	81.5%
Kansas C	ity Regi	ion													
White	1.4%	7.4%	12.1%	12.6%	66.5%	1.2%	9.9%	17.9%	18.6%	52.3%	1.6%	6.0%	8.8%	9.2%	74.5%
Black	4.3%	8.8%	11.4%	12.4%	63.1%	7.3%	13.3%	15.1%	18.8%	45.4%	2.0%	5.4%	8.7%	7.6%	76.2%
Hispanic	1.4%	7.0%	12.7%	14.1%	64.8%	3.4%	12.1%	20.7%	25.9%	37.9%	0.0%	3.6%	7.1%	6.0%	83.3%
Other/Unk.	0.0%	4.8%	19.0%	4.8%	71.4%	0.0%	13.3%	40.0%	6.7%	40.0%	0.0%	0.0%	7.4%	3.7%	88.9%
Total	2.4%	7.8%	12.0%	12.5%	65.4%	3.6%	11.4%	17.3%	18.9%	48.8%	1.6%	5.6%	8.7%	8.5%	75.6%
Northwes	t Regio	n													
White	1.4%	7.6%	6.2%	7.6%	77.2%	1.6%	14.5%	6.5%	8.1%	69.4%	1.2%	2.4%	6.0%	7.2%	83.1%
Black	0.0%	0.0%	6.1%	15.2%	78.8%	0.0%	0.0%	0.0%	7.1%	92.9%	0.0%	0.0%	10.5%	21.1%	68.4%
Hispanic	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other/Unk.	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Total	1.1%	6.1%	6.1%	8.9%	77.8%	1.3%	11.7%	5.2%	7.8%	74.0%	1.0%	1.9%	6.8%	9.7%	80.6%
Central R	egion														
White	0.8%	4.7%	8.3%	15.1%	71.2%	0.6%	5.9%	13.5%	20.0%	60.0%	0.9%	3.7%	4.2%	11.2%	80.0%
Black	1.8%	3.2%	10.1%	9.6%	75.2%	4.8%	6.0%	10.8%	16.9%	61.4%	0.0%	1.5%	9.6%	5.2%	83.7%
Hispanic	0.0%	18.2%	9.1%	0.0%	72.7%	0.0%	50.0%	0.0%	0.0%	50.0%	0.0%	0.0%	14.3%	0.0%	85.7%
Other/Unk.	0.0%	14.3%	14.3%	0.0%	71.4%	0.0%	33.3%	0.0%	0.0%	66.7%	0.0%	0.0%	25.0%	0.0%	75.0%
Total	1.1%	4.5%	9.0%	12.7%	72.6%	1.9%	6.9%	12.3%	18.5%	60.4%	0.6%	2.8%	6.6%	8.6%	81.4%
Southeas	t Regio	n													
White	1.0%	4.9%	6.9%	5.9%	81.3%	2.0%	8.0%	9.0%	9.0%	72.0%	0.0%	1.9%	4.9%	2.9%	90.3%
Black	3.7%	6.1%	7.3%	3.7%	79.3%	5.9%	11.8%	11.8%	2.9%	67.6%	2.1%	2.1%	4.2%	4.2%	87.5%
Hispanic	0.0%	0.0%	50.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%
Other/Unk.	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Total	1.7%	5.2%	7.2%	5.2%	80.8%	2.9%	8.8%	9.6%	7.4%	71.3%	0.6%	1.9%	5.2%	3.2%	89.0%
Southwes	st Regio	n													
White	1.2%	4.0%	7.8%	9.7%	77.3%	2.2%	5.7%	11.7%	12.5%	67.8%	0.0%	2.1%	3.4%	6.4%	88.0%
Black	1.3%	5.3%	5.3%	6.7%	81.3%	3.6%	10.7%	0.0%	14.3%	71.4%	0.0%	2.1%	8.5%	2.1%	87.2%
Hispanic	0.0%	0.0%	5.0%	5.0%	90.0%	0.0%	0.0%	7.1%	7.1%	85.7%	0.0%	0.0%	0.0%	0.0%	100.0%
Other/Unk.	0.0%	0.0%	0.0%	7.7%	92.3%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	12.5%	87.5%
Total	1.1%	4.0%	7.4%	9.2%	78.3%	2.2%	5.8%	10.6%	12.3%	69.1%	0.0%	2.1%	3.9%	5.9%	88.1%
Statewide	e (MO)														
White	1.3%	6.7%	10.0%	10.7%	71.3%	1.7%	9.5%	14.3%	14.9%	59.6%	1.1%	4.9%	7.1%	8.0%	78.9%
Black	3.5%	8.0%	10.5%	9.6%	68.5%	5.5%	11.7%	15.8%	15.1%	51.8%	1.9%	5.1%	6.3%	5.2%	81.6%
Hispanic	1.6%	6.6%	11.9%	10.7%	69.1%	3.6%	9.0%	17.1%	18.0%	52.3%	0.0%	4.5%	7.6%	4.5%	83.3%
Other/Unk.	0.0%	2.9%	12.7%	3.9%	80.4%	0.0%	8.6%	22.9%	2.9%	65.7%	0.0%	0.0%	7.5%	4.5%	88.1%
Total	2.2%	7.2%	10.2%	10.2%	70.2%	3.4%	10.4%	15.1%	15.0%	56.1%	1.3%	4.9%	6.8%	6.8%	80.2%

 $<sup>^{\</sup>star\star}$  CD4 counts as reported to the Office of Surveillance of the MO Dept of Health & Senior Services.

## **Currently Living HIV-Diagnosed Persons**

Table 4 identifies People Living with HIV (PLWH) in Missouri by Region and State for Calendar Year 2002 who have had a current CD4 count. Based on collaboration with Ryan White grantees across the State, we are using a current CD4 count obtained within one year to represent access to primary care. This table illustrates that over 70% of currently living HIV-diagnosed persons in calendar year 2002 did not have a recorded CD4 count. The Southeast region had the highest percentage at 80.8% of PLWH who did not have a recorded CD4 count. It also indicates that the Kansas City Region had the highest percentage of clients with CD4 counts (25%) above 200 cells/mm³. Limitations to this data include delayed reporting and failure to report. Implications for prevention and care are that it is critical to ensure access to care for all PLWH and to document outcomes.

Table 4. Currently Living HIV-Diagnosed Persons, Reported through December 31, 2002 by Ryan White Title II Consortium Region\*, Race/Ethnicity, and Most Recent CD4+ T-Lymphocyte Count Reported During the 12-Month Period Ending December 31, 2002\*\*

Consortium Region/			Most Re	ecent Report	ed CD4+ T-L	ymphocyte						
Race/Ethnicity	<50 cel	ls/µL	50-199 ce	ells/µL	200-500	cells/µL	>500 ce	ells/µL	No Re	port **	Tota	****
St. Louis Region												
White	29	1.4%	159	7.5%	205	9.7%	198	9.4%	1516	72.0%	2,107	100.0%
Black	78	3.4%	194	8.4%	240	10.4%	196	8.5%	1596	69.3%	2,304	100.0%
Hispanic	2	3.0%	4	6.0%	8	11.9%	5	7.5%	48	71.6%	67	100.0%
Other/Unknown	0	0.0%	0	0.0%	4	11.4%	1	2.9%	30	85.7%	35	100.0%
St. Louis Region Total	109	2.4%	357	7.9%	457	10.1%	400	8.9%	3190	70.7%	4,513	100.0%
Kansas City Region												
White	26	1.4%	133	7.4%	217	12.1%	226	12.6%	1197	66.5%	1,799	100.0%
Black	44	4.3%	90	8.8%	117	11.4%	127	12.4%	647	63.1%	1,025	100.0%
Hispanic	2	1.4%	10	7.0%	18	12.7%	20	14.1%	92	64.8%	142	100.0%
Other/Unknown	0	0.0%	2	4.8%	8	19.0%	2	4.8%	30	71.4%	42	100.0%
Kansas City Region Total	72	2.4%	235	7.8%	360	12.0%	375	12.5%	1966	65.4%	3,008	100.0%
Northwest Region												
White	2	1.4%	11	7.6%	9	6.2%	11	7.6%	112	77.2%	145	100.0%
Black	0	0.0%	0	0.0%	2	6.1%	5	15.2%	26	78.8%	33	100.0%
Hispanic	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%	1	100.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%	1	100.0%
Northwest Region Total	2	1.1%	11	6.1%	11	6.1%	16	8.9%	140	77.8%	180	100.0%
Central Region												
White	3	0.8%	18	4.7%	32	8.3%	58	15.1%	274	71.2%	385	100.0%
Black	4	1.8%	7	3.2%	22	10.1%	21	9.6%	164	75.2%	218	100.0%
Hispanic	0	0.0%	2	18.2%	1	9.1%	0	0.0%	8	72.7%	11	100.0%
Other/Unknown	0	0.0%	1	14.3%	1	14.3%	0	0.0%	5	71.4%	7	100.0%
Central Region Total	7	1.1%	28	4.5%	56	9.0%	79	12.7%	451	72.6%	621	100.0%
Southeast Region												
White	2	1.0%	10	4.9%	14	6.9%	12	5.9%	165	81.3%	203	100.0%
Black	3	3.7%	5	6.1%	6	7.3%	3	3.7%	65	79.3%	82	100.0%
Hispanic	0	0.0%	0	0.0%	1	50.0%	0	0.0%	1	50.0%	2	100.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	4	100.0%	4	100.0%
Southeast Region Total	5	1.7%	15	5.2%	21	7.2%	15	5.2%	235	80.8%	291	100.0%
Southwest Region												
White	8	1.2%	28	4.0%	54	7.8%	67	9.7%	536	77.3%	693	100.0%
Black	1	1.3%	4	5.3%	4	5.3%	5	6.7%	61	81.3%	75	100.0%
Hispanic	0	0.0%	0	0.0%	1	5.0%	1	5.0%	18	90.0%	20	100.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%	1	7.7%	12	92.3%	13	100.0%
Southwest Region Total	9	1.1%	32	4.0%	59	7.4%	74	9.2%	627	78.3%	801	100.0%
Missouri												
White	70	1.3%	359	6.7%	531	10.0%	572	10.7%	3800	71.3%	5,332	100.0%
Black	130	3.5%	300	8.0%	391	10.5%	357	9.6%	2559	68.5%	3,737	100.0%
Hispanic	4	1.6%	16	6.6%	29	11.9%	26	10.7%	168	69.1%	243	100.0%
Other/Unknown	0_	0.0%	. 3	2.9%	13	12.7%	_ 4_	3.9%	82_	80.4%	102_	100.0%
Missouri Total	204	2.2%	678	7.2%	964	10.2%	959	10.2%	6,609	70.2%	9,414	100.0%

<sup>\*</sup>The Ryan White Title II Consortium Region in which the person was initially diagnosed with HIV infection (if an HIV case) or AIDS (if an AIDS case). This is not necessarily wh he/she is currently residing.

NOTE: Row Percentages are shown.

<sup>\*\*</sup> No Report is defined as not having a CD4+ count reported to MDHSS during the indicated time period.

<sup>\*\*\*</sup>Of living HIV-infected persons who have been reported to the MDHSS and who also have at least one reported CD4+ test result (7,495 people),

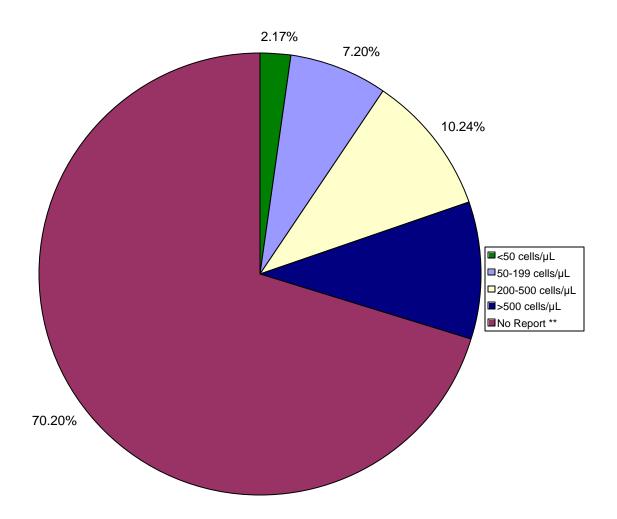
<sup>61% (4,569</sup> people) had their most recent reported CD4+ test performed between January 1, 2000 and December 31, 2002; additionally,

<sup>7% (562</sup> people) had their most recent reported CD4+ test performed in the first quarter of 2003.

<sup>\*\*\*\*</sup>Does not include 161 people incarcerated at Missouri State Correctional Facilities

Of living HIV-infected persons, 22% (2,080 people) have never had a CD4+ test performed.

Figure 3. Reported CD4 count results for all persons living with HIV/AIDS during the 12 month period ending December 31, 2002



29.8% of all PLWH had a CD4 count reported during CY 2002.

Table 5. Currently Living HIV-Diagnosed Persons, Enrolled in HIV Case Management as of December 31, 2002 by Region\*, Race/Ethnicity, and Most Recent CD4+ T-Lymphocyte Count Reported During the 12-Month Period Ending December 31, 2002\*\*

Consortium Region/			Most Red	ent Repor	ted CD4+ T-L	ymphocyte	Count					
Race/Ethnicity	<50 ce	lls/µL	50-199 ce	lls/µL	200-500 ce	ells/µL	>500 c	ells/µL	No Re	port **	Tota	****
St. Louis Region												
White	16	2.1%	88	11.4%	109	14.2%	101	13.1%	456	59.2%	770	100.0%
Black	52	5.0%	123	11.7%	181	17.3%	147	14.0%	546	52.0%	1,049	100.0%
Hispanic	2	5.9%	1	2.9%	6	17.6%	4	11.8%	21	61.8%	34	100.0%
Other/Unknown		0.0%	0	0.0%	2	20.0%	0	0.0%	8	80.0%	10	100.0%
St. Louis Region Total	70	3.8%	212	11.4%	298	16.0%	252	13.5%	1031	55.3%	1,863	100.0%
Kansas City Region												
White	8	1.2%	64	9.9%	115	17.9%	120	18.6%	337	52.3%	644	100.0%
Black	32	7.3%	58	13.3%	66	15.1%	82	18.8%	198	45.4%	436	100.0%
Hispanic	2	3.4%	7	12.1%	12	20.7%	15	25.9%	22	37.9%	58	100.0%
Other/Unknown	0	0.0%	2	13.3%	6	40.0%	1	6.7%	6	40.0%	15	100.0%
Kansas City Region Total	42	3.6%	131	11.4%	199	17.3%	218	18.9%	563	48.8%	1,153	100.0%
Northwest Region												
White	1	1.6%	9	14.5%	4	6.5%	5	8.1%	43	69.4%	62	100.0%
Black	0	0.0%	0	0.0%	0	0.0%	1	7.1%	13	92.9%	14	100.0%
Hispanic	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%	1	100.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Northwest Region Total	1	1.3%	9	11.7%	4	5.2%	6	7.8%	57	74.0%	77	100.0%
Central Region												
White	1	0.6%	10	5.9%	23	13.5%	34	20.0%	102	60.0%	170	100.0%
Black	4	4.8%	5	6.0%	9	10.8%	14	16.9%	51	61.4%	83	100.0%
Hispanic	0	0.0%	2	50.0%	0	0.0%	0	0.0%	2	50.0%	4	100.0%
Other/Unknown	0	0.0%	1	33.3%	0	0.0%	0	0.0%	2	66.7%	3	100.0%
Central Region Total	5	1.9%	18	6.9%	32	12.3%	48	18.5%	157	60.4%	260	100.0%
Southeast Region												
White	2	2.0%	8	8.0%	9	9.0%	9	9.0%	72	72.0%	100	100.0%
Black	2	5.9%	4	11.8%	4	11.8%	1	2.9%	23	67.6%	34	100.0%
Hispanic	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	100.0%	2	100.0%
Southeast Region Total	4	2.9%	12	8.8%	13	9.6%	10	7.4%	97	71.3%	136	100.0%
Southwest Region												
White	8	2.2%	21	5.7%	43	11.7%	46	12.5%	249	67.8%	367	100.0%
Black	1	3.6%	3	10.7%	0	0.0%	4	14.3%	20	71.4%	28	100.0%
Hispanic	0	0.0%	0	0.0%	1	7.1%	1	7.1%	12	85.7%	14	100.0%
Other/Unknown	0	0.0%	0	0.0%	0	0.0%	0	0.0%	5	100.0%	5	100.0%
Southwest Region Total	9	2.2%	24	5.8%	44	10.6%	51	12.3%	286	69.1%	414	100.0%
Missouri												
White	36	1.7%	200	9.5%	303	14.3%	315	14.9%	1259	59.6%	2,113	100.0%
Black	91	5.5%	193	11.7%	260	15.8%	249	15.1%	851	51.8%	1,644	100.0%
Hispanic	4	3.6%	10	9.0%	19	17.1%	20	18.0%	58	52.3%	111	100.0%
Other/Unknown	. 0_	0.0%	3_	8.6%	. 8_	22.9%	_ 1_	2.9%	23_	65.7%	35_	100.0%
Missouri Total	131	3.4%	406	10.4%	590	15.1%	585	15.0%	2,191	56.1%	3,903	100.0%

<sup>\*</sup>The Ryan White Title II Consortium Region in which the person was initially diagnosed with HIV infection (if an HIV case) or AIDS (if an AIDS case). This is not nece he/she is currently residing.

Of living HIV-infected persons in Case Management, 32% (823 people) have never had a CD4+ test performed.

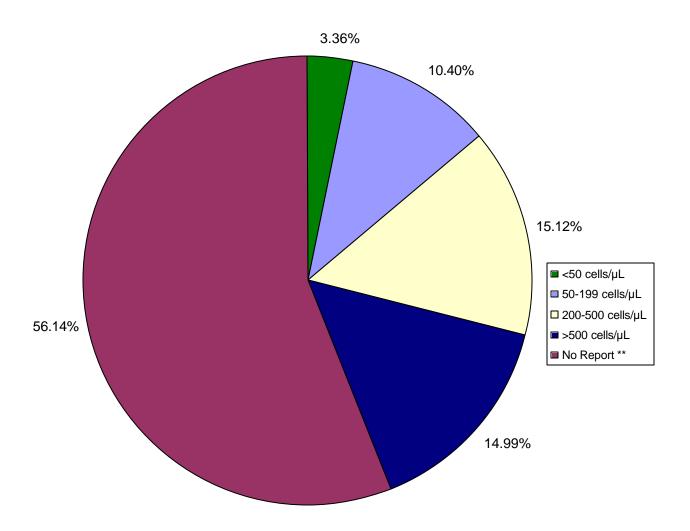
NOTE: Row Percentages are shown.

<sup>\*\*</sup> No Report is defined as not having a CD4+ count reported to MDHSS during the indicated time period.

<sup>\*\*\*</sup>Of living HIV-infected persons who have been reported to the MDHSS and who also have at least one reported CD4+ test result (7,495 people), 61% (4,569 people) had their most recent reported CD4+ test performed between January 1, 2000 and December 31, 2002; additionally, 7% (562 people) had their most recent reported CD4+ test performed in the first quarter of 2003.

<sup>\*\*\*\*</sup>Does not include 161 people incarcerated at Missouri State Correctional Facilities

Figure 4. Reported CD4 count results for case managed clients living with HIV/AIDS during the 12 month period ending December 31, 2002



43.8% of case managed clients had a CD4 count reported during CY 2002

Table 6. HIV+ Diagnosed\* by Demographics for 2002

	All Nev Diagnose	v HIV+ d in 2002	All Nev Diagnose (Case Mar		_	w HIV+ d in 2002 d a CD4	who had	d in 2002	All New Diagnose with ar Diagnosis	d in 2002 n Initial	All Nev Diagnosed with ar Diagnosis (Case Mar	d in 2002* In Initial In of AIDS
	#	%	#	%	#	%	#	%	#	%	#	%
Total	395	100.0%	162	41.0%	248	62.8%	103	63.6%	112	28.4%	43	26.5%
<b>Gender</b> Men Women	313 82	79.2% 20.8%	127 35	78.4% 21.6%	194 54	78.2% 21.8%	82 21	79.6% 20.4%	87 25	77.7% 22.3%	35 8	81.4% 18.6%
Race/Ethnicity White Black Hispanic Am Indian/Alaskan Native Asian Other/Unknown  Age Group <2	203 161 17 2 3 9	51.4% 40.8% 4.3% 0.5% 0.8% 2.3%	84 65 7 1 2 3	51.9% 40.1% 4.3% 0.6% 1.2% 1.9%	146 88 11 0 1 2	58.9% 35.5% 4.4% 0.0% 0.4% 0.8%	59 37 5 0 1	57.3% 35.9% 4.9% 0.0% 1.0% 1.0%	64 42 5 0 1 0	57.1% 37.5% 4.5% 0.0% 0.9% 0.0%	23 18 1 0 1 0	53.5% 41.9% 2.3% 0.0% 2.3% 0.0%
2 - 12 13 - 24 25 - 44 45 - 64 65 and over Unknown	3 16 258 112 6	0.0% 0.8% 4.1% 65.3% 28.4% 1.5% 0.0%	2 8 112 39 1	1.2% 4.9% 69.1% 24.1% 0.6% 0.0%	2 7 160 75 4	0.0% 0.8% 2.8% 64.5% 30.2% 1.6% 0.0%	1 3 72 26 1 0	1.0% 2.9% 69.9% 25.2% 1.0% 0.0%	1 6 80 25 0	0.0% 0.9% 5.4% 71.4% 22.3% 0.0% 0.0%	0 3 32 8 0	0.0% 0.0% 7.0% 74.4% 18.6% 0.0%
Region Kansas City Northwest North Central St. Louis Southwest Southeast	109 11 37 182 42 14	27.6% 2.8% 9.4% 46.1% 10.6% 3.5%	44 5 13 74 19 7	27.2% 3.1% 8.0% 45.7% 11.7% 4.3%	50 10 24 119 36 9	20.2% 4.0% 9.7% 48.0% 14.5% 3.6%	20 5 8 50 17 3	19.4% 4.9% 7.8% 48.5% 16.5% 2.9%	29 4 10 51 15 3	25.9% 3.6% 8.9% 45.5% 13.4% 2.7%	9 0 4 24 5 1	20.9% 0.0% 9.3% 55.8% 11.6% 2.3%

<sup>\*</sup> Determined by the Date of Diagnosis, NOT the Date of Report.

Forty-one percent of newly diagnosed HIV+ in calendar year 2002 enrolled in HIV Case Management. Sixty-three percent of newly diagnosed PLWH did access care early using the current CD4 count as an indicator of access to primary care.

Table 7. HIV Progression to AIDS as of 12/31/2002

							,	20211212112	;	>										
	Total HIV Population	Enolledin HV Case Nanagement		<1 year (Living)	∆ Mana	<1 year (Case Management)	1-5 Ú)	1-5 years (Living)	1-5 years (Case Management)	æars æe ement)	6-10 year (Living)	<u>σ</u>	6-10 years (Case Management)	/ears ise ement)	>10 years (Living)	_	>10 years (Case Management)		Avg # of Nbriths Between HV and AIDS Diagnosis (Living)	Avg # of Nontrs Between HV and ADS Diagnosis (Case
		% #	#	%	#	%	#	%	#	%	#	%	#	%	#	<b>-</b> %	, #	%		
Total	9575	3956 41.32% 2502 26.13% 907 22.93% 1434 14.98%	% 250	iz 26.13%	206 °/	2238%	1434		526 1	13.30%	479	200%	159 4	4.02%	<u>8</u>	0.88%	.0 62	0.73%	26.18	26.12
<b>Gender</b> IVen Women	8077 1498	3320 83.92% 2192 22.89% 636 16.08% 310 3.24%	% 215 % 31(	22 22.89% 0 3.24%	6 793 114	20.05% 1244	1244 190	12.99% 1.98%	<del>8</del> 6	11.53% 1.77%	410 69	4.28%	8 8	3.51%	55 9 0	0.78%	3 8 0.00	0.66% 0.08%	26.05 27.03	26.78
Race/Ethnicity White Back Hispanic AmIndian/Alaskan Native Asian Other/Uhknown	53.77 3851 245 88 88 88 88	2241 56.65% 1554 39.28% 115 2.91% 21 0.53% 10 0.25% 15 0.38%	%%%%%% 864 864 864 864 864 864 864 864 864 864	55 16.24% 4 9.02% 5 0.69% 0.08% 0.09%	334 86	14.28% 7.34% 0.56% 0.08% 0.08%	773 31 7 0	8.07% 6.49% 0.32% 0.07% 0.00%	23.28 4 - 0	7.05% 5.92% 0.10% 0.03%	252 0	263% 001% 000% 000%	880-00	2.40% 1.59% 0.00% 0.00% 0.00%	84 6000	0.44% 0.03% 0.00% 0.00%	\$20000 \$20000	0.20% 0.53% 0.00% 0.00%	23.52 30.63 19.10 26.81 15.50	22 34.59 11.40 12.75
Age Group 0 - 14 15 - 24 25 - 34 35 - 44 45 - 54 55 - 64 65 and over	2029 2029 2153 2153 24 124	33 0.83% 201 5.08% 875 22.12% 1820 46.01% 805 20.35% 193 4.88% 29 0.73%	%%%%% %%%%%% %7139 33 556 33 566 33 566 33 566 34 566	5 0.16% 0.84% 1 5.44% 8 11.30% 5 5.81% 8 1.65% 3 0.34%	8 4 25 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	0.20% 1.19% 1.06% 1.24% 0.08%	7 8 8 8 8 7 7 7 8 8 8 8 7 7	0.11% 0.65% 3.09% 6.62% 0.96% 0.22%	ω % ½ ½ % % ~	0.08% 0.91% 3.13% 6.09% 2.25% 0.66%	5 17 12 12 12 13 14 14 14 14 14 14 14 14 14 14 14 14 14	0.06% 0.13% 1.13% 1.23% 0.34%	4 0 <del>8</del> 2 8 <del>2 -</del>	0.05% 0.15% 1.14% 0.76% 0.03%	0 6 7 4 5 6 6 0	0.03% 0.18% 0.46% 0.07% 0.03%	0 4 4 4 + 0	0.00% 0.05% 0.20% 0.35% 0.00%	30.7 25.22 27.15 25.72 26.57 24.33	8 8 8 8 8 8 8 8 8 8 8 8 8 8
Karsas City Northwest North Central St. Louis Southwest Southeast	3009 204 707 4535 805 315	1221 30.86% 87 2.20% 308 7.79% 1866 46.92% 347 8.77% 137 3.46%	30.86% 796 2.20% 52 7.75% 164 46.92% 1184 8.77% 221 3.46% 85	6 8.31% 4 1.71% 4 12.37% 1 2.31% 5 0.89%	27 8 27 8 27 8 28 8 28 8 28	7.03% 0.48% 1.62% 10.79% 2.15% 0.86%	8 x 5 g x x	5.01% 0.37% 1.05% 7.34% 0.87%	25 88 98 E	4.58% 0.23% 0.91% 6.55% 0.76%	54 × 48 88 88	1.56% 0.07% 0.25% 0.25% 0.27%	8 c a 8 c a	0.83% 0.08% 0.20% 0.25% 0.15%	822402	0.28% 0.02% 0.46% 0.08%	7 + + + + + + 0.0 0.0 0.0	0.18% 0.03% 0.46% 0.03%	8.32 2.32 2.33 2.33 8.63 8.63 8.63	24.15 24.33 23.46 29.40 19.16 22.15

Time lapsed between the initial HIV detection test and the reported AIDS diagnosis of all reported persons living with HIV compared to those enrolled in HIV Case Management.

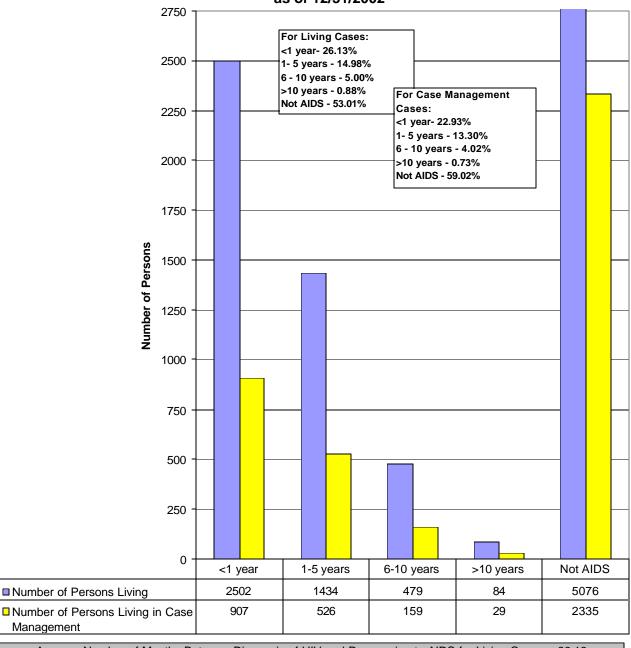
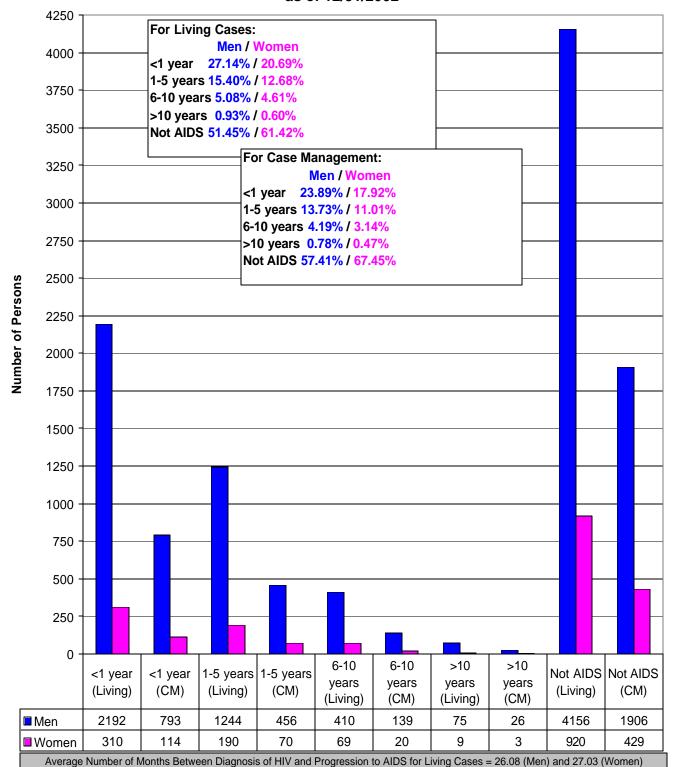


Figure 5. HIV Progression to AIDS as of 12/31/2002

Average Number of Months Between Diagnosis of HIV and Progression to AIDS for Living Cases = 26.18

Average Number of Months Between Diagnosis of HIV and Progression to AIDS for Case Management Cases = 26.12



Average Number of Months Between Diagnosis of HIV and Progression to AIDS for Case Management Cases = 26.78 (Men) and 25.74 (Women)

Figure 6. HIV Progression to AIDS by Gender as of 12/31/2002

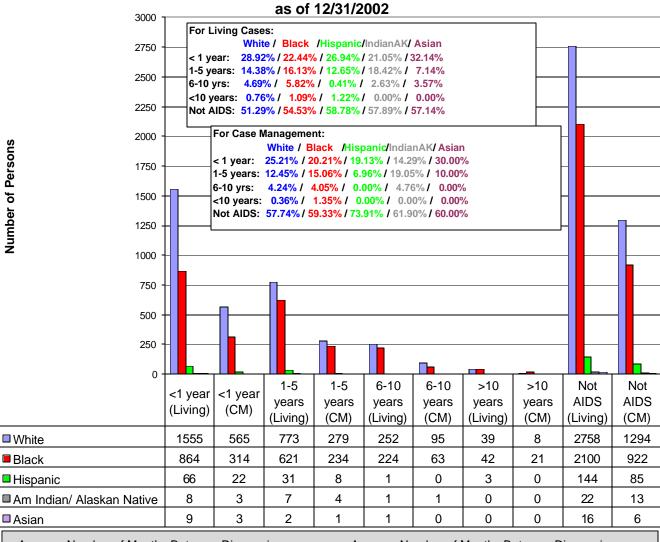


Figure 7. HIV Progression to AIDS by Race/Ethnicity

Average Number of Months Between Diagnosis of HIV and Progression to AIDS for Living Cases:

White = 23.52

Black = 30.63Hispanic = 19.10

Am. Indian/Alaskan Native = 26.81

Asian = 15.50

Average Number of Months Between Diagnosis of HIV and Progression to AIDS for Case Management Cases:

White = 22.91

Black = 31.59

Hispanic = 11.40

Am. Indian/Alaskan Native = 36.25

Asian = 12.75

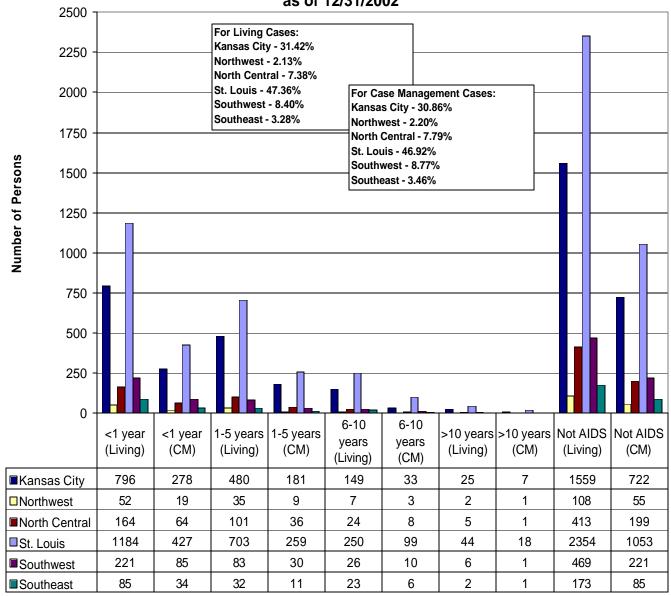


Figure 8. HIV Progression to AIDS by Region as of 12/31/2002

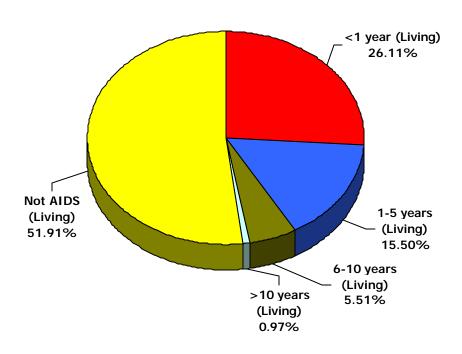
Average Number of Months Between Diagnosis of HIV and Progression of AIDS for Living Cases:

Kansas City - 26.32 Northwest - 25.64 North Central - 23.44 St. Louis - 27.38 Southwest - 20.32 Southeast - 26.06 Average Number of Months Between Diagnosis of HIV and Progression of AIDS for Case Management Cases:

K ansas City - 24.15 Northwest - 24.31 North Central - 21.46 St. Louis - 29.40 Southwest - 19.16 Southeast - 22.15

Figure 9. HIV Progression to AIDS: St. Louis Region As of 12/31/03

#### ALL PERSONS LIVING WITH HIV



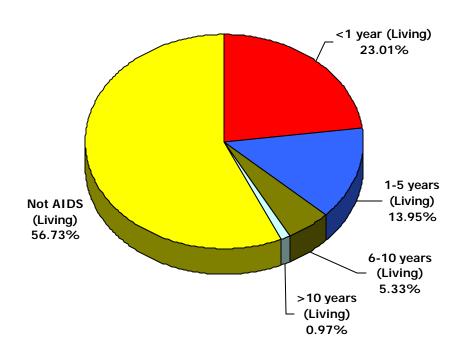
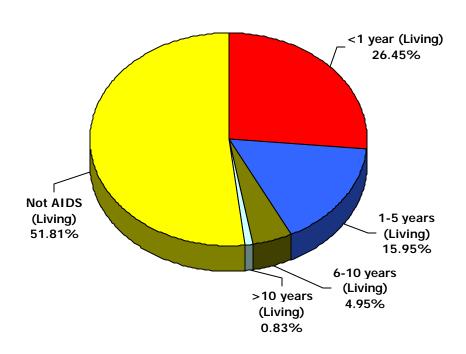


Figure 10. HIV Progression to AIDS: Kansas City Region As of 12/31/03



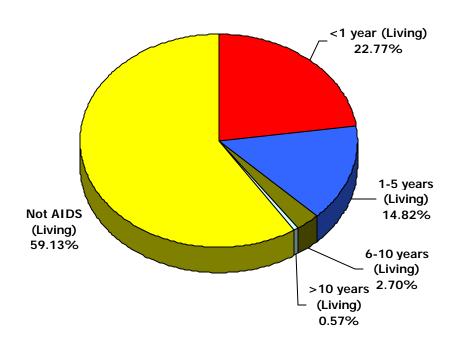
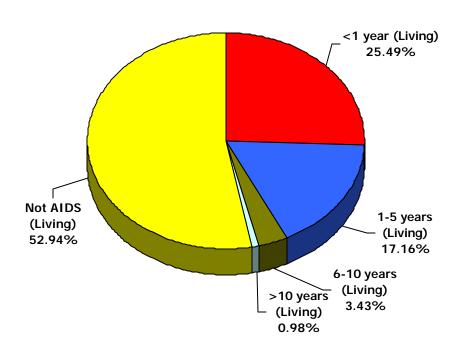


Figure 11. HIV Progression to AIDS: Northwest Region As of 12/31/03



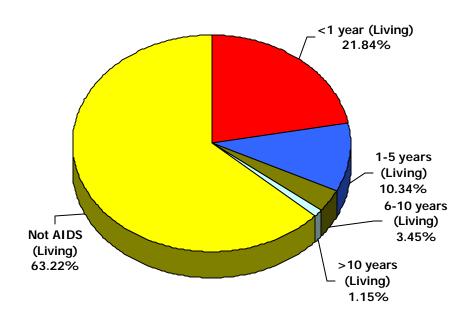
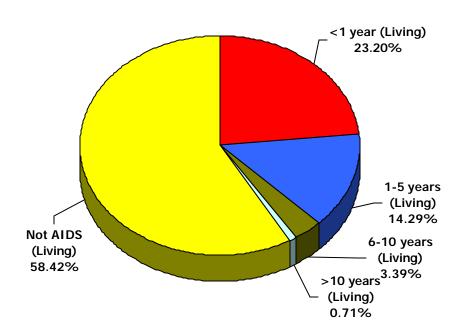


Figure 12. HIV Progression to AIDS: North Central Region As of 12/31/03



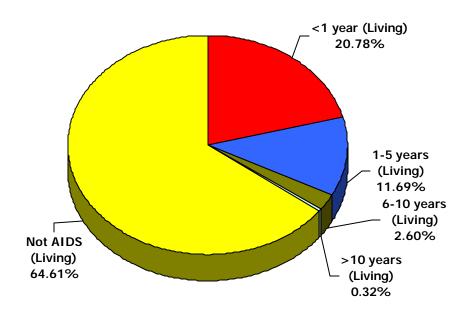
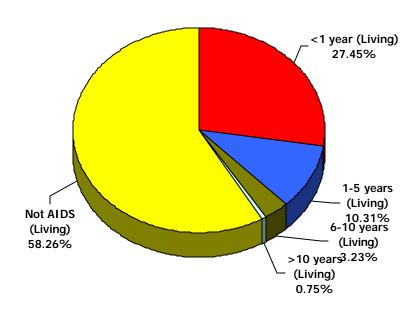


Figure 13. HIV Progression to AIDS: Southwest Region As of 12/31/03

#### ALL PERSONS LIVING WITH HIV



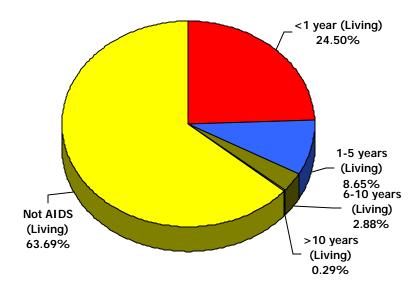
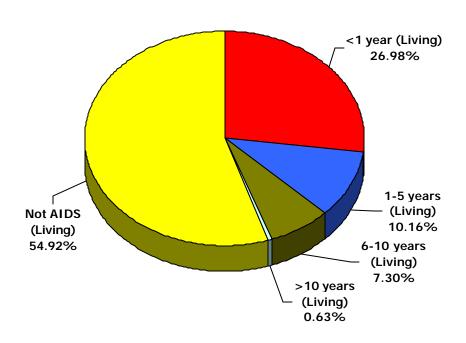
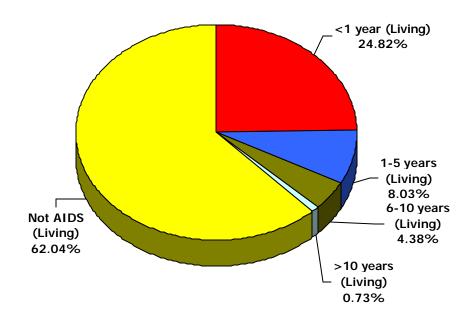


Figure 14. HIV Progression to AIDS: Southeast Region As of 12/31/03





## Patterns of Service Utilization Of Ryan White Services

Title I provides grants to eligible metropolitan areas for services for persons living with HIV.

Title II provides grants to states and territories for services for persons living with HIV.

ADAP (AIDS Drug Assistance Program) provides grants to states and territories for assistance in providing pharmaceuticals to persons living with HIV.

Title III provides grants to organizations for outpatient early intervention services and primary care.

Title IV provides comprehensive community-based, and family centered services to children, youth, and women living with HIV and their families.

Please Note: The following are available at <a href="www.hab.hrsa.gov">www.hab.hrsa.gov</a>. ADAP has only Client Reports available, Title III has only Client and Services Reports available, and Title IV has only Client Reports available.

## **Grantee: Title I - Kansas City**

## Demographic Characteristics of Clients Receiving Services Funded by Ryan White CARE Act Title I Programs\* 2001

Tryan White OARE Act Hite H Tograms 20	
Characteristics	Percent of Clients**
Race-Ethnicity	
White (Non-Hispanic)	46.5%
Black (Non-Hispanic)	46.8%
Hispanic	5.6%
Asian - Pacific Islander	0.3%
American Indian - Alaska Native	0.4%
Other***	0.5%
G e n d e r	
Male	81.8%
Female	18.2%
Age	
Less than 13 years	1.3%
13 - 19 years	0.3%
20 - 44 years	78.7%
45 years or older	19.6%

<sup>\*</sup> Clients served includes all individuals who had at least one visit for any eligible service during the reporting period. Client counts are duplicated at the Grantee level.

<sup>\*\*</sup> Percentages may not total to 100% due to rounding error.

<sup>\*\*\*</sup> Other includes people of other races and people of two or more races.

# **Grantee: Title I - Kansas City**

## Number of Client Visits for Selected Services Ryan White CARE ActTitle I Programs 2001

Service	Number of Visits
Case Management	3,376
Medical Care	4,762
Dental Care	1,338
Mental Health Counseling	385
Substance Abuse Treatment/Counseling	0
Rehabilitation Services	0
Home Health	0

## Number of Clients Receiving Services Ryan White CARE Act Title I Programs\* 2001

Services	Number of Clients
Hospice	0
Buddy-Companion Services	0
Client Advocacy	14
Counseling (not Mental Health)	71
Service Outreach / Secondary Prevention Counseling	1,728
Emergency Financial Assistance	196
Food Bank/Home Delivered Meals	1,777
Transportation	604
Housing Assistance	40
Other Services	2,617

<sup>\*</sup> Clients served includes all individuals who had at least one visit for any eligible service during the reporting period. Client counts are duplicated at the Grantee level.

Grantee: Title I - St. Louis

## Demographic Characteristics of Clients Receiving Services Funded by Ryan White CARE Act Title I Programs\* 2001

Characteristics	Percent of Clients**
Race-Ethnicity	
White (Non-Hispanic)	44.1%
Black (Non-Hispanic)	53.6%
Hispanic	1.7%
Asian - Pacific Islander	0.1%
American Indian - Alaska Native	0.1%
Other***	0.4%
Gender	
Male	78.2%
Female	21.8%
Age	
Less than 13 years	3.0%
13 - 19 years	1.1%
20 - 44 years	73.8%
45 years or older	22.2%

<sup>\*</sup> Clients served includes all individuals who had at least one visit for any eligible service during the reporting period. Client counts are duplicated at the Grantee level.

## Number of Client Visits for Selected Services Ryan White CARE ActTitle I Programs 2001

Service	Number of Visits
Case Management	4,757
Medical Care	3,384
Dental Care	1,666
Mental Health Counseling	1,077
Substance Abuse Treatment/Counseling	291
Rehabilitation Services	2,624
Home Health	459

<sup>\*\*</sup> Percentages may not total to 100% due to rounding error.

<sup>\*\*\*</sup> Other includes people of other races and people of two or more races.

## Grantee: Title I - St. Louis

# Number of Clients Receiving Services Ryan White CARE Act Title I Programs\* 2001

Services	Number of Clients
Hospice	0
Buddy-Companion Services	182
Client Advocacy	725
Counseling (not Mental Health)	262
Service Outreach / Secondary Prevention Counseling	0
Emergency Financial Assistance	803
Food Bank/Home Delivered Meals	2,511
Transportation	1,172
Housing Assistance	1,317
Other Services	5,803

<sup>\*</sup> Clients served includes all individuals who had at least one visit for any eligible service during the reporting period. Client counts are duplicated at the Grantee level.

## Grantee (State): Title II Missouri

## Demographic Characteristics of Clients Receiving Services Funded by Rvan White CARE Act Title II Programs\* 2001

Characteristics	Percent of Clients**
Race-Ethnicity	
White (Non-Hispanic)	50.0%
Black (Non-Hispanic)	46.2%
Hispanic	2.9%
Asian - Pacific Islander	0.2%
American Indian - Alaska Native	0.3%
Other***	0.5%
G e n d e r	
Male	78.3%
Female	21.7%
Age	
Less than 13 years	1.1%
13 - 19 years	0.7%
20 - 44 years	77.0%
45 years or older	21.2%

<sup>\*</sup> Clients served includes all individuals who had at least one visit for any eligible service during the reporting period. Client counts are duplicated at the Grantee level.

<sup>\*\*</sup> Percentages may not total to 100% due to rounding error.

<sup>\*\*\*</sup> Other includes people of other races and people of two or more races.

# Grantee (State): Title II Missouri

## Number of Client Visits for Selected Services Ryan White CARE ActTitle II Programs 2001\*

Service	Number of Visits
Case Management	6,046
Medical Care	7,441
Dental Care	2,472
Mental Health Counseling	1,144
Substance Abuse Treatment/Counseling	0
Rehabilitation Services	2,487
Home Health	459

# Number of Clients Receiving Services Ryan White CARE Act Title II Programs\* 2001

Services	Number of Clients
Hospice	0
Buddy Companion Services	0
Client Advocacy	77
Counseling (Not mental health)	0
Service Outreach /Secondary Prevention Counseling	1,710
Emergency Financial Assistance	614
Food Bank/Home Delivered Meals	1,274
Transportation	1,512
Housing Assistance	574
Other Services	3,974

<sup>\*</sup> Clients served includes all individuals who had at least one visit for any eligible service during the reporting period. Client counts are duplicated at the Grantee level.

# Grantee (State): ADAP - Missouri

# Demographic Characteristics of ADAP Clients 2001 AIDS Pharmaceutical Assistance Program

Client Characteristics	Number	Percent*
Gender		
Male	1,495	83.1%
Female	305	16.9%
Race-Ethnicity		
White (Non-Hispanic)	959	53.3%
African American/Black (Non-Hispanic)	774	43.0%
Hispanic	58	3.2%
Asian - Pacific Islander	***	-
Native American - Alaska Native	***	-
Other**	***	-
Age		
Less than 13 years	***	-
13-19 years	13	0.7%
20-44 years	1,406	78.1%
45 years or older	379	21.1%

<sup>\*</sup> Percentages may not total to 100% due to rounding error.

<sup>\*\*</sup> Other includes people of other races and people of two or more races.

<sup>\*\*\*</sup> The count of clients served was less than 10.

# **Grantee: Title III- AIDS Project of the Ozarks**

## Demographic Characteristics of Clients Receiving Services Funded by Ryan White CARE Act Title III EIS Programs 2001

	Clients Served	
Characteristics	Number	Percent*
Race-Ethnicity		
White (Non-Hispanic)	300	83.3%
African American/Black (Non-Hispanic)	46	12.8%
Hispanic	10	2.8%
Asian - Pacific Islander	* *	-
American Indian - Alaska Native	* *	-
Gender		
Male	270	75.0%
Female	90	25.0%
Age		
Less than 13 years	* *	-
13 - 19 years	**	-
20 years or older	355	98.6%

<sup>\*</sup> Percentages may not total to 100% due to rounding error.

# Ryan White CARE Act Title III EIS Programs Number of Clients Served by Type of Service 2001

Services	Number of Clients
Primary Health Care	360
Counseling and Testing	611
Referrals	10
Outreach	278
Case Management/Eligibility Assistance	501

<sup>\*\*</sup> The count of clients served is less than 10.

# **Grantee: Title III - Kansas City Free Health Clinic**

## Demographic Characteristics of Clients Receiving Services Funded by Ryan White CARE Act Title III EIS Programs 2001

	Clients Served	
Characteristics	Number	Percent*
Race-Ethnicity		
White (Non-Hispanic)	648	53.4%
African American/Black (Non-Hispanic)	492	40.6%
Hispanic	66	5.4%
Asian - Pacific Islander	**	-
American Indian - Alaska Native	**	-
Gender		
Male	1,069	87.8%
Female	148	12.2%
Age		
Less than 13 years	**	-
13 - 19 years	**	-
20 years or older	1,215	99.8%

<sup>\*</sup> Percentages may not total to 100% due to rounding error.

# Ryan White CARE Act Title III EIS Programs Number of Clients Served by Type of Service 2001

Services	Number of Clients
Primary Health Care	1,217
Counseling and Testing	5,682
Referrals	102
Outreach	8,250
Case Management/Eligibility Assistance	1,362

<sup>\*\*</sup> The count of clients served is less than 10.

## **Grantee: Title III - SAINT LOUIS CONNECTCARE**

## **Demographic Characteristics of Clients Receiving Services Funded by** Ryan White CARE Act Title III EIS Programs 2001

	Clients Served	
Characteristics	Number	Percent*
Race-Ethnicity		
White (Non-Hispanic)	63	18.4%
African American/Black (Non-Hispanic)	280	81.6%
Hispanic	**	-
Asian - Pacific Islander	**	-
American Indian - Alaska Native	**	-
Gender		
Male	300	86.5%
Female	47	13.5%
Age		
Less than 13 years	**	-
13 - 19 years	**	-
20 years or older	335	99.4%

<sup>\*</sup> Percentages may not total to 100% due to rounding error.
\*\* The count of clients served is less than 10.

## Ryan White CARE Act Title III EIS Programs Number of Clients Served by Type of Service 2001

Services	Number of Clients
Primary Health Care	347
Counseling and Testing	0
Referrals	197
Outreach	0
Case Management/Eligibility Assistance	266

# **Grantee: Title IV Kansas City Free Clinic**

## **Demographic Characteristics of Clients Served by** Ryan White CARE Act Title IV Programs 2001

Client Characteristics	Number	Percent*
Gender**		
Male	55	32.7%
Female	113	67.3%
Race-Ethnicity		
White (Non-Hispanic)	73	29.9%
African American/Black (Non-Hispanic)	152	62.3%
Hispanic	12	4.9%
Asian	***	-
American Indian/Alaska Native	***	-
Native Hawaiian/Other Pacific Islander	***	-
Unknown	***	-
Age-Gender and Pregnant Women		
Infants (<2 years old)	11	4.5%
Children (2-12 years old)	62	25.4%
Adolescents (13-19 years old)	***	-
Young Adults (20-24 years old)	18	7.4%
Pregnant Women	***	-
Women (25 and older)	89	36.5%
Men (25 and older)	45	18.4%
Unknown	***	-

<sup>\*</sup> Percentages may not total to 100% due to rounding error.
\*\* Gender is reported only for adolescents and adults ages 13 and older.

<sup>\*\*\*</sup> The count of clients served is less than 10.

# **Grantee: Title IV - Washington University - Project ARK**

## **Demographic Characteristics of Clients Served by** Ryan White CARE Act Title IV Programs 2001

Client Characteristics	Number	Percent*
Gender**		
Male	100	18.8%
Female	431	81.2%
Race-Ethnicity		
White (Non-Hispanic)	135	15.3%
African American/Black (Non-Hispanic)	459	52.1%
Hispanic	11	1.2%
Asian	***	-
American Indian/Alaska Native	***	-
Native Hawaiian/Other Pacific Islander	***	-
Unknown	271	30.8%
Age-Gender and Pregnant Women		
Infants (<2 years old)	69	7.8%
Children (2-12 years old)	178	20.2%
Adolescents (13-19 years old)	68	7.7%
Young Adults (20-24 years old)	106	12.0%
Pregnant Women	30	3.4%
Women (25 and older)	306	34.7%
Men (25 and older)	21	2.4%
Unknown	103	11.7%

<sup>\*</sup> Percentages may not total to 100% due to rounding error.
\*\* Gender is reported only for adolescents and adults ages 13 and older.

<sup>\*\*\*</sup> The count of clients served is less than 10.

**HIV Disease Internet Resources: Missouri** 

# **HIV Disease Epidemiologic Reports**

DHSS. **HIV/AIDS: Scientific Studies and Reports** (Includes links to current and past editions of the Missouri *HIV/STD Epidemiologic Profiles* [formerly the *KWIK Facts*], as well as to current and past editions of *HIV/STD Statistics*.)

http://www.dhss.state.mo.us/GLRequest/ID/SSRHIVAIDS.html

CDC. HIV/AIDS Basic Statistics http://www.cdc.gov/hiv/stats.htm

CDC. HIV/AIDS Surveillance Report http://www.cdc.gov/hiv/stats/hasrlink.htm

# **HIV Disease Web Sites**

DHSS: **HIV/AIDS** 

http://www.dhss.state.mo.us/GLRequest/ID/HIVAIDS.html

DHSS. Section of STD/HIV

http://www.dhss.state.mo.us/sshapcs/SSHAPCS.html

CDC Division of HIV/AIDS Prevention Home Page http://www.cdc.gov/hiv/dhap.htm

CDC. Center for AIDS Prevention Studies (CAPS) http://www.caps.ucsf.edu/AIDSlist.html

NIAID. **NIAID Publications on HIV/AIDS** http://www.niaid.nih.gov/publications/aids.htm

National Library of Medicine. **HIV/AIDS Information** http://sis.nlm.nih.gov/HIV/HIVMain.html

Helena Hatch Special Care Center for Women (St. Louis) http://hhscc.wustl.edu/

Project A.R.K. - AIDS/HIV Resources for Kids (St. Louis)

http://peds.wustl.edu/div/id/spec/

**Healthfinder**<sup>®</sup> (A gateway consumer health and human services information web site from the U.S. Government.)

http://www.healthfinder.gov/default.htm

DHSS = Missouri Department of Health and Senior Services CDC = Centers for Disease Control and Prevention NIAID = National Institute of Allergy and Infectious Diseases HRSA=Health Resources and Services Administration USPHS = U.S. Public Health Service **HIV Disease Internet Resources: Missouri** 

## **HIV Disease Treatment/Prevention Information**

HIV InSite Knowledge Base (A comprehensive, on-line textbook of HIV disease from the University of California San Francisco and San Francisco General Hospital.)

http://hivinsite.ucsf.edu/InSite.jsp?page=KB

**Medical Management of HIV Infection** by John G. Bartlett, M.D. and Joel E. Gallant, M.D., M.P.H. (A handbook of HIV disease management that serves as the standard of care for the Johns Hopkins AIDS Service and has been accepted as the standard of care for quality assurance by Maryland Medicaid.) http://www.hopkins-aids.edu/publications/

HRSA. A Guide to the Clinical Care of Women With HIV http://hab.hrsa.gov/womencare.htm

HRSA. HIV/AIDS Services http://hab.hrsa.gov/

## **HIV Disease Clinical Trials and Patient Care Information**

CDC. Taking Part in Research Studies: What Questions Should You Ask? http://www.cdc.gov/hiv/pubs/brochure/unc3bro.htm

The Pediatric AIDS Clinical Trials Group http://pactg.s-3.com/

Helena Hatch Special Care Center for Women (St. Louis) http://hhscc.wustl.edu/

Project A.R.K. - AIDS/HIV Resources for Kids (St. Louis) http://peds.wustl.edu/div/id/spec/

# **HIV Disease Educational Opportunities for Health Professionals**

Midwest AIDS Education and Training Centers (MATEC) http://www.uic.edu/depts/matec/

AIDS Education Training Centers (AETC) http://www.aids-etc.org/

STD Internet Resources: Missouri

# **STDs-Epidemiologic Reports**

MDOH. **Sexually Transmitted Diseases: Scientific Studies and Reports** (Includes links to current and past editions of the Missouri *HIV/STD Epidemiologic Profiles* [formerly the KWIK Facts], as well as to current and past editions of *HIV/STD Statistics*.)

http://www.dhss.state.mo.us/GLRequest/ID/SSRSTD.html

CDC. STD Surveillance & Statistics http://www.cdc.gov/nchstp/dstd/Stats Trends/Stats and Trends.htm

## **STDs-Web Sites**

DHSS. **Disease Directory: Chlamydia, Gonorrhea, Syphilis, Syphilis-Congenital** (From the DHSS Home Page main menu, click on "Resources", and then on "Disease Directory".)

http://www.dhss.state.mo.us/

DHSS. Section of STD/HIV/AIDS Prevention & Care Services http://www.dhss.state.mo.us/sshapcs/SSHAPCS.html

CDC. Sexually Transmitted Diseases: Facts & Information http://www.cdc.gov/nchstp/dstd/disease\_info.htm

CDC. CDC Division of STD Prevention Home Page http://www.cdc.gov/nchstp/dstd/dstdp.html

CDC. National Prevention Information Network (NPIN) - STD Resources http://www.cdcnpin.org/scripts/index.asp

NIAID. **NIAID Publications on STDs** http://www.niaid.nih.gov/publications/stds.htm

**Healthfinder**<sup>®</sup> (A gateway consumer health and human services information web site from the U.S. Government.)

http://www.healthfinder.gov/default.htm

# **STDs-Treatment/Prevention Information**

Sexually Transmitted Diseases Treatment Guidelines 2002 http://www.cdc.gov/std/treatment/default.htm

DHSS. STD Manual

http://www.dhss.state.mo.us/sshapcs/page 38.html

# STDs-Educational Opportunities for Health Professionals

St. Louis STD/HIV Prevention and Training Center http://std.wustl.edu/

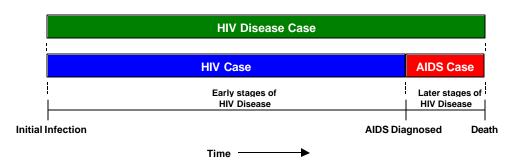
National STD/HIV Prevention and Training Center Network http://depts.washington.edu/nnptc/

DHSS = Missouri Department of Health and Senior Services

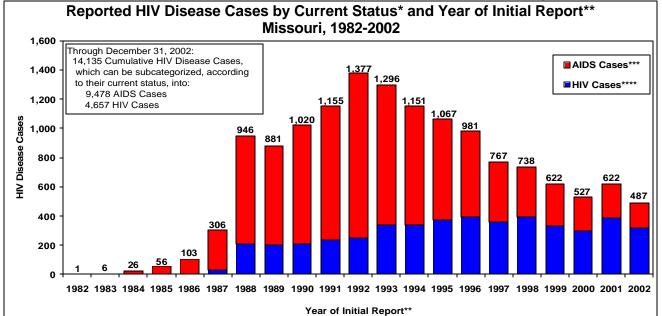
CDC = Centers for Disease Control and Prevention

NIAID = National Institute of Allergy and Infectious Diseases

## Relationship of HIV Disease Cases, HIV Cases, and AIDS Cases

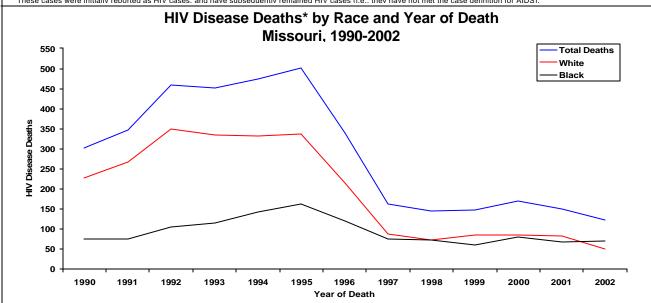


From the time a person is infected with human immunodeficiency virus (HIV) until death, he/she has **HIV Disease**. All persons with HIV Disease can be subclassified as either an **AIDS case** (if they are in the later stages of the disease process and have met the case definition for AIDS) or an **HIV case** (if they are in the earlier stages of the disease process and have not met the AIDS case definition).



\* HIV Case vs. AIDS Case

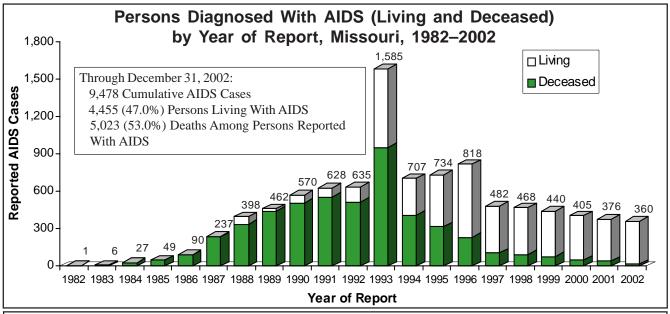
These cases were initially reported as HIV cases, and have subsequently remained HIV cases (i.e., they have not met the case definition for AIDS).



<sup>\*</sup> Based on death certificate data.

<sup>\*\*</sup>Cases are indicated by year of their initial report to the Missouri Department of Health and Senior Services(i.e., by the year in which the first report of the person, whether as an HIV case or an AIDS case, was received by the department.)

<sup>&</sup>quot;These cases were either: 1) initially reported as HIV cases and then later reclassified as AIDS cases because they had subsequently come to meet the AIDS case definition: or 2) initially reported as an AIDS case.



# Reported HIV and AIDS Cases by Gender, Race/Ethnicity, and Age at Diagnosis, Missouri, 1982–2002

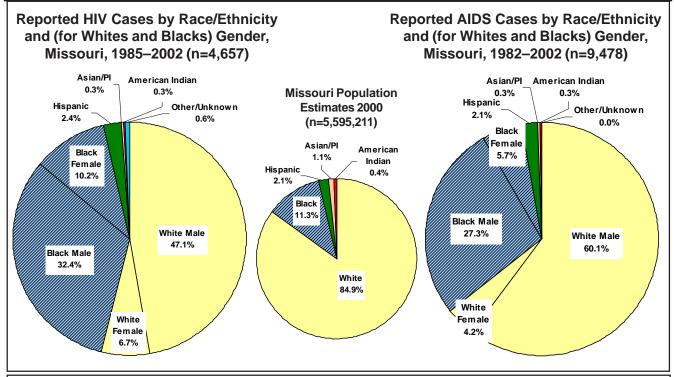
	HIV	Cases*	•		AIDS C	ases**		HIV/AIDS	S Cases
Repo	orted 2002	Cum	ulative*	Repo	rted 2002	_Cum	ulative	Cumu	lative
Case	s %	Cases	%	Cases	s %	Cases	%	Cases	%
Gender									
Male250	(79.1%)	3,848	(82.6%)	298	(82.8%)	8,520	(89.9%)	12,368	(87.5%)
Female 66	(20.9%)	809	(17.4%)	62	(17.2%)	958	(10.1%)	1,767	(12.5%)
Race/Ethnicity									
White	(49.4%)	2,504	(53.8%)	185	(51.4%)	6,098	(64.3%)	8,602	(60.9%)
Black136	(43.0%)	1,981		160	(44.4%)	3,125	(33.0%)	5,106	(36.1%)
Hispanic 14		114	(2.4%)	14	(3.9%)	197	(2.1%)	311	(2.2%)
Asian/Pacific Islander 2		16		1		26		42	(0.3%)
American Indian 2	` /	15	` /	0		32	,	47	(0.3%)
Unknown6	(1.9%)	27	(0.6%)	0	(0.0%)	0	(0.0%)	27	(0.2%)
Race/Ethnicity and Gender									
White Male131	(41.5%)	2,193		168	(46.7%)	5,701		7,894	(55.8%)
Black Male 96		1,507		119		2,587		4,094	(29.0%)
Hispanic Male		101		11		181		282	(2.0%)
Asian/Pacific Islander Male		12		0		22		34	(0.2%)
American Indian Male		14		0		29		43	(0.3%)
Unknown Male6		21	` ′	0	, ,	0	` ′	21	(0.1%)
White Female	(7.9%)	311		17		397	( ,	708	(5.0%)
Black Female		474		41	( ' ' ' ' '	538		1,012	(7.2%)
Hispanic Female 1 Asian/Pacific Islander Female	(0.3%)	13		3	(	16		29	(0.2%)
American Indian Female		4	` /	1				8 4	(0.1%) (0.0%)
Unknown Female	(/	6	` /	0		0	,	6	(0.0%)
	(0.070)	0	(0.170)		(0.070)	0	(0.070)	0	(0.070)
Age at Diagnosis <sup>‡</sup>									
<13 1	(0.3%)	45		1	(	58	(	103	(0.7%)
13-19	( ,	214		5		101		315	(2.2%)
20-24	(,	728		15	, ,	559	. ,	1,287	(9.1%)
30-34	(14.9%) (24.4%)	1,008		35		1,521		2,527 3,354	(17.9%) (23.7%)
35-39		749	( ' ' ' ' '	87	,	1,982		2,731	(19.3%)
40-44 40		454		74	,	1,323		1,777	(12.6%)
45-49	()	230		34		760		990	(7.0%)
50+	, ,	203	` '	45	` /	848	,	1,051	(7.4%)
Missouri Total 316	(100.0%)	4,657	(100.0%)	360	(100.0%)	9,478	(100.0%)	14,135	(100.0%)

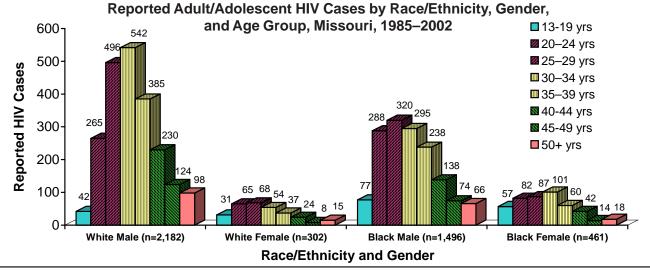
<sup>\*</sup>HIV Cases-Persons with HIV infection who have not developed one of the specific diseases or conditions which would cause them to meet the case definition for AIDS.

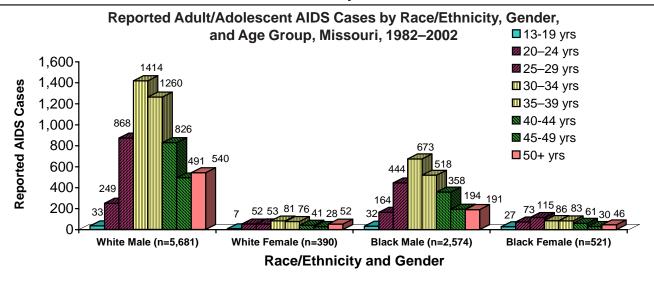
\*\*AIDS Cases-Persons with HIV infection who have developed one or more of the specific diseases or conditions which cause them to meet the AIDS case definition.

For HIV Cases, Age at Diagnosis is the age at which the individual was first diagnosed with HIV infection.

For AIDS Cases, Age at Diagnosis is the age at which the individual was first diagnosed with AIDS.







## Reported HIV and AIDS Cases by Exposure Category, Missouri, 1982–2002

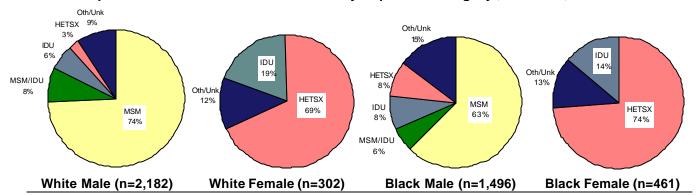
_		HIV	Cases*			AIDS C	ases**		HIV/AID	S Cases
_	Repo	rted 2002	Cun	nulative	Repo	rted 2002	Cun	nulative	Cumu	lative
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
Exposure Category <sup>¶</sup>										
MSM	120	(38.0%)	2,654	(57.0%)	169	(46.9%).	6,508	(68.7%)	9,162	(64.8%)
MSM/IDU	10	(3.2%)	273	(5.9%)	13	(3.6%).	813	(8.6%)	1,086	(7.7%)
IDU	10	(3.2%)	393	(8.4%)	28	(7.8%).	709	(7.5%)	1,102	(7.8%)
Heterosexual Contact	35	(11.1%)	748	(16.1%)	47	(13.1%).	837	(8.8%)	1,585	(11.2%)
Adult Hemophiliac	0	(0.0%)	30	(0.6%)	3	(0.8%).	148	(1.6%)	178	(1.3%)
Adult Transfusion	0	(0.0%)	14	(0.3%)	2	(0.6%).	104	(1.1%)	118	(0.8%)
Other/Unknown Adult	140	(44.3%)	500	(10.7%)	94	(26.1%).	287	(3.0%)	787	(5.6%)
Perinatal Transmission	0	(0.0%)	38	(0.8%)	2	(0.6%).	48	(0.5%)	86	(0.6%)
Other/Unknown Pediatric	1	(0.3%)	7	(0.2%)	2	(0.6%).	24	(0.3%)	31	(0.2%)
Missouri Total	. 316	(100.0%)	4,657	(100.0%)	360	(100.0%) .	9,478	(100.0%)	14,135	(100.0%)

\*HIV Cases-Persons with HIV infection who have not developed one of the specific diseases or conditions which would cause them to meet the case definition for AIDS.

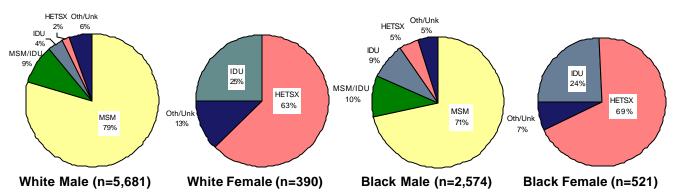
\*\*AIDS Cases-Persons with HIV infection who have developed one or more of the specific diseases or conditions which cause them to meet the AIDS case definition.

MSM=men who have sex with men; MSM/IDU=men who have sex with men and inject drugs; IDU=injecting drug users

## Reported Adult/Adolescent HIV Cases by Exposure Category<sup>1</sup>, Missouri, 1985-2002



## Reported Adult/Adolescent AIDS Cases by Exposure Category<sup>1</sup>, Missouri, 1982-2002



MSM=men who have sex with men; MSM/IDU=men who have sex with men and inject drugs; IDU=injecting drug users; HETSX=heterosexual contact; Oth/Unk=Other/Unknown

# Reported HIV and AIDS Cases and Rates by Area of Residence at Time of Diagnosis, Missouri, 1982–2002

	HIV Cases*				AIDS C	ases**	·			
	R	Reported	2002	Cun	nulative	R	eported:	2002	Cum	ulative
Geographic Area	Cases	%	Rate***	Cases	%	Cases	%	Rate***	Cases	%
Location										
St. Louis City <sup>†</sup>	68	(21.5%)	19.5	1,340	(28.8%)	114	(31.7%)	32.7	2,693	(28.4%)
St. Louis County <sup>†</sup>	54	(17.1%)		629	(13.5%)	49		4.8	1,466	(15.5%)
Kansas City <sup>†</sup>	76	(24.1%)	17.2	1,155	(24.8%)	80	(22.2%)	18.1	2,614	(27.6%)
Outstate <sup>†</sup>	86	(27.2%)	2.3	1,190	(25.6%)	105	(29.2%)	2.8	2,475	(26.1%)
Missouri Correctional Facilitie	es <sup>††</sup> 32	(10.1%)		343	(7.4%)	12	(3.3%)		230	(2.4%)
Missouri Total	316	(100.0%)	5.6	4,657	(100.0%)	360	(100.0%)	6.4	9,478	(100.0%)

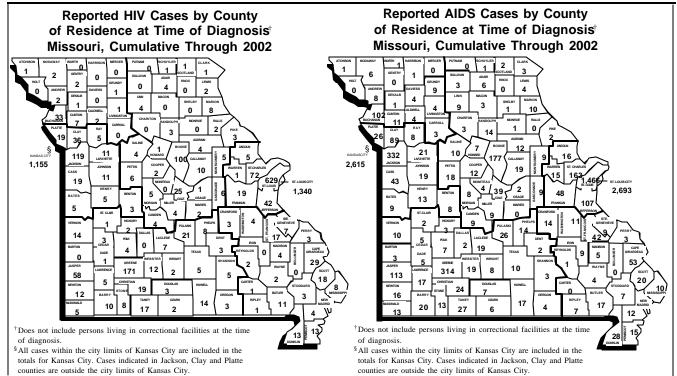
<sup>\*</sup>HIV Cases-Persons with HIV infection who have not developed one of the specific diseases or conditions which would cause them to meet the case definition for AIDS.

<sup>\*\*</sup>AIDS Cases-Persons with HIV infection who have developed one or more of the specific diseases or conditions which cause them to meet the AIDS case definition.

<sup>\*\*\*</sup>Per 100,000 population, based on 2000 population estimates.

<sup>†</sup>Does not include persons living in correctional facilities at the time of diagnosis. These persons are included in the "Missouri Correctional Facilities" category.

 $<sup>\</sup>ensuremath{^{\dagger\dagger}}\xspace$  Includes state, county and local correctional facilities.



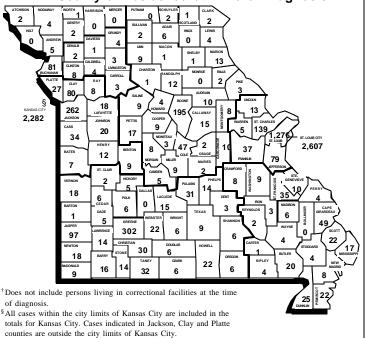
#### Reported HIV Cases by Race/Ethnicity and Area of Residence at Time of Diagnosis, Missouri, 2002 **Total** White Black Hispanic 2002 Cases Rate\* 2002 Cases Rate\* 2002 Cases Rate\* 2002 Cases Rate\* Georgraphic Area St. Louis City† 68 ......19.5 23 ...... 15.1 37.....20.8 3 ......42.7 27 ..... 3.5 St. Louis County† 54 .....5.3 24.....12.4 2 ......13.7 76.....17.2 32 .....11.9 Kansas City† 36.....26.1 6.....19.6 86 .....2.3 61 ..... 1.7 20......16.7 3 .....4.5 Outstate Missouri Correctional Facilities # ... .32 .....--19.....-13 .....--0 ..... 156 ..... 3.3 136..... 21.6 Missouri Total ...... 316 ...... 5.6 14 ..... 11.8

Currently Living HIV-Diagnosed Persons (HIV and AIDS Cases) Who Were Residents of Missouri at the Time of Diagnosis, and Who Were Reported Through 2002, by Gender and Race/Ethnicity

Living HIV-

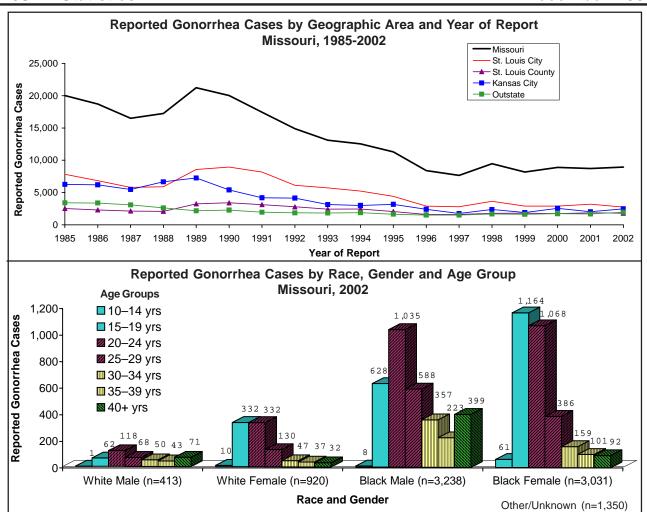
	Living niv-				
	Diagnosed Persons %				
Gender	_				
Male	7,563 84.8%				
Female					
Race/Ethnicity					
White	5,005 56.1%				
Black	3,617 40.6%				
Hispanic	2.11 2.4%				
Asian/Pacific Islander	28 0.3%				
American Indian	30 0.3%				
Unknown	27 0.3%				
Race/Ethnicity and Gend	er				
White Male	4,492 50.4%				
Black Male					
Hispanic Male					
Asian/Pacific Islander Male .	20 0.2%				
American Indian Male					
Unknown Male	21 0.2%				
White Female	513 5.8%				
Black Female					
Hispanic Female					
Asian/Pacific Islander Female	8 0.1%				
American Indian Female					
Unknown Female					
Total Living HIV-Diagnosed I	Persons8,918100.0%				

Currently Living HIV-Diagnosed Persons (HIV and AIDS Cases), Reported Through 2002, by Missouri County of Residence† at Time of Diagnosis



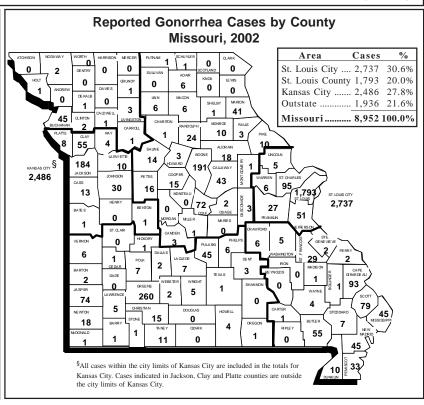
<sup>\*</sup>Per 100,000 population, based on 2000 population estimates.

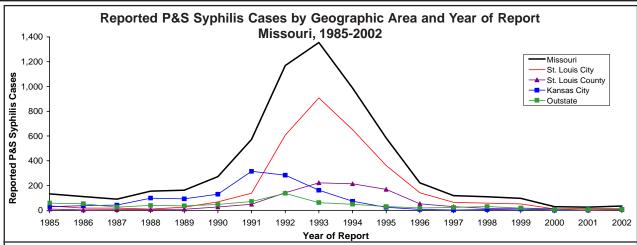
<sup>†</sup>Does not include persons living in correctional facilities at the time of diagnosis. These persons are included in the "Missouri Correctional Facilities" category. ††Includes state, county and local correctional facilities.

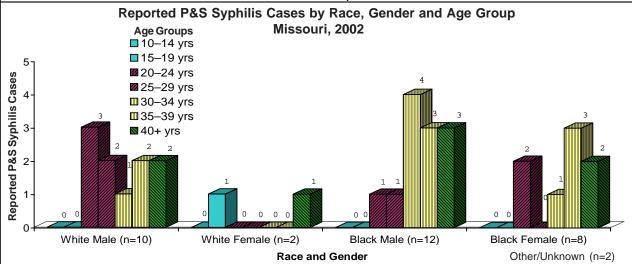


## Reported Gonorrhea Cases and Rates by Geographic Area, Missouri, 2002

Cases	%	Rate*
Missouri		
Whites1,339	15.0%	28.2
Blacks 6,289	70.3%	999.2
Other/Unknown 1,324	14.8%	
Total Cases 8,952	100.0%	160.0
St. Louis City		
Whites 107	3.9%	70.1
Blacks 2,260	82.6%	1,267.8
Other/Unknown 370	13.5%	
Total Cases 2,737	100.0%	786.1
St. Louis County		
Whites 135	7.5%	17.3
Blacks 1.356	75.6%	701.5
Other/Unknown 302	16.8%	701.5
Total Cases 1,793	100.0%	176.4
Kansas City		
Whites 250	10.0%	93.3
Blacks 1,921	77.3%	1,393.3
Other/Unknown 315	12.8%	
Total Cases 2,486	100.0%	563.0
Outstate		
Whites 847	43.8%	23.9
Blacks 752	38.8%	627.0
Other/Unknown 337	17.4%	
Total Cases 1,936	100.0%	51.1
*Per 100,000 population		

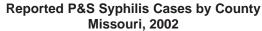


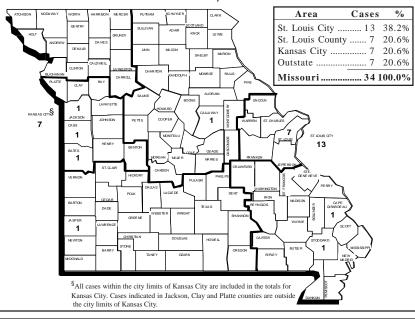




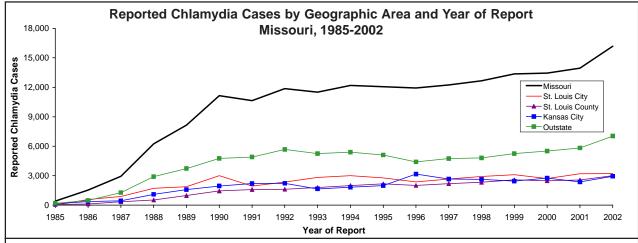
## Reported P&S Syphilis Cases and Rates by Geographic Area, Missouri, 2002

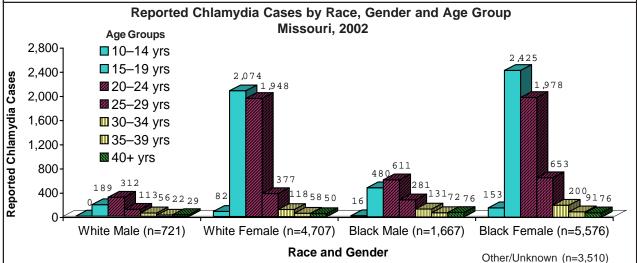
Cases	%	Rate*
Missouri		
Whites12	35.3%	0.3
Blacks20	58.8%	3.2
Other/Unknown2	5.9%	
Total Cases34	100.0%	0.6
St. Louis City		
Whites4	30.8%	2.6
Blacks 9	69.2%	6.0
Other/Unknown 0	0.0%	
Total Cases13	100.0%	3.7
St. Louis County		
Whites1	14.3%	0.1
Blacks 5	71.4%	2.6
Other/Unknown 1	14.3%	
Total Cases7	100.0%	0.7
Kansas City		
Whites1	14.3%	0.4
Blacks 5	71.4%	3.6
Other/Unknown1	14.3%	
Total Cases7	100.0%	1.6
Outstate		
Whites6	85.7%	0.2
Blacks 1	14.3%	0.8
Other/Unknown 0	0.0%	
Total Cases	100.0%	0.2





1 Congenital Syphilis case was reported in 2002 in St. Louis City





## Reported Chlamydia Cases and Rates by Geographic Area, Missouri, 2002

Cases	s %	Rate*
Missouri	,,,	rtuto
	22.00/	115.2
Whites 5,474	33.8%	115.3
Blacks 7,280	45.0%	1,256.7
Other/Unknown 3,427	21.2%	200.2
Total Cases 16,181	100.0%	289.2
St. Louis City		
Whites179	5.6%	117.2
Blacks 2,312	72.2%	1,296.9
Other/Unknown 711	22.2%	
Total Cases 3,202	100.0%	919.6
St. Louis County		
Whites 365	12.2%	46.8
Blacks 2,012	67.1%	1,040.8
Other/Unknown 623	20.8%	
Total Cases 3,000	100.0%	295.2
Kansas City		
Whites 514	17.5%	191.8
Blacks 1,809	61.5%	1,312.0
Other/Unknown 619	21.0%	
Total Cases 2,942	100.0%	666.3
Outototo		
Outstate	CO 00/	104.5
Whites4,416	62.8%	124.5
Blacks 1,147	16.3%	956.3
Other/Unknown 1,474	20.9%	105.5
Total Cases 7,037	100.0%	185.7
*Per 100,000 population		

